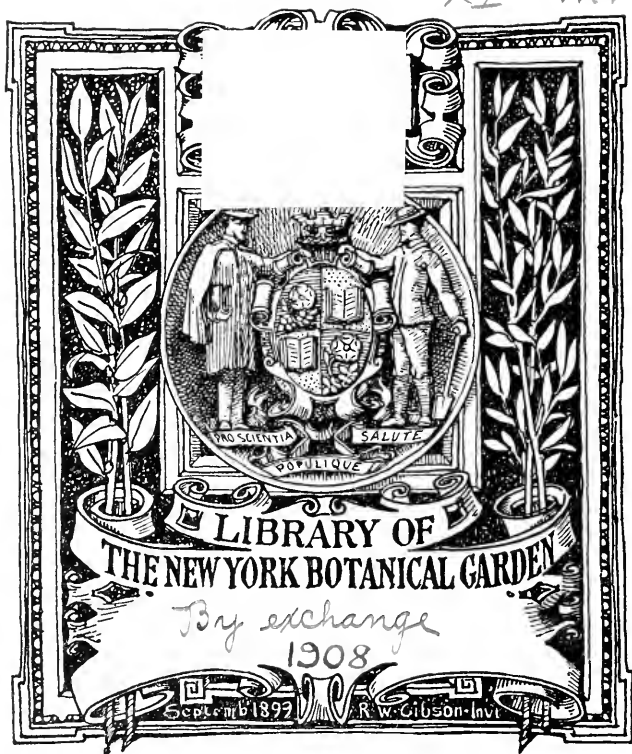
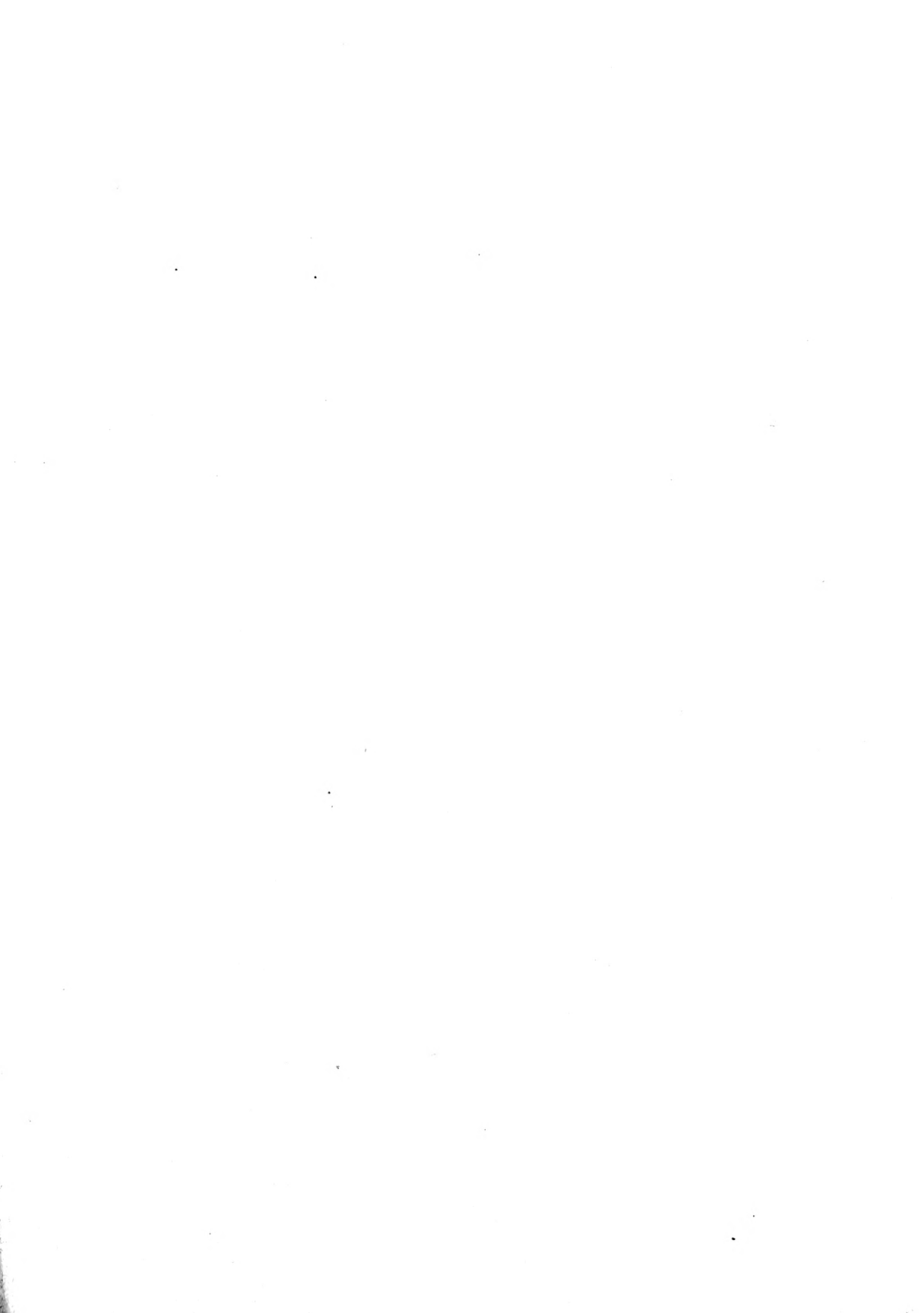


XI .R4













# IRISH GARDENING





A MONTHLY JOURNAL DEVOTED TO THE  
ADVANCEMENT OF HORTICULTURE AND  
ARBORICULTURE IN IRELAND

VOL. III.

JANUARY TO DECEMBER, 1908

*ILLUSTRATED*

LIBRARY  
NEW YORK  
BOTANICAL  
GARDEN.

DUBLIN

PUBLISHED BY IRISH GARDENING, LIMITED

AT 53 UPPER SACKVILLE STREET

1908



# INDEX

NOTE.—References to all the common fruits, vegetables and flowers mentioned in "The Month's Work" and in general articles, reports, &c., are not indexed.

## A

Achillea alpina, 70.  
Adiantum, 44.  
Alpine garden, the, 181.  
Alpine plants, light in relation to, 187.  
American blight, 193.  
American gooseberry mildew, 14 56, 58, 110, 157.  
Anemone Fannini, 71.  
Annuals, 138.  
Annuals, hardy, 52.  
Answers to correspondents, 16, 32, 48, 112, 132, 148, 170.  
Arbor day, 156.  
Artificial manures, 82, 100.  
Ash tree, the, 17.  
Aspidistra, 85.  
Apples, cookery notes, 163; why stored apples keep, 169; stored, respiration in, 189.  
Apple tree, novel, 76.  
Autumn flowering plants, 170.

## B

Bee-keeping, 48, 63, 79, 95, 111, 129, 147, 164, 179, 195.  
Begonias, tuberous, 59.  
Berries, winter, 167.  
Black currant mite, 48.  
Black scab in potato, 14, 120, 157, 174, 189.  
Bladder senna, 144.  
Boconia cordata, 171.  
Bog deal, 113.  
Bone meal, 196.  
Books, 20, 43, 78, 94, 128, 178.  
Border pinks, 84.  
Brassica crosses, 22.  
Broad beans, 19; cooking of, 19.  
Brompton stocks, 76.  
Budding, 102.  
Bulbs in bowls, 68.  
Bulb growing in rooms, 137.  
Brussels sprouts, 36.

## C

Calendar of cultural operations, vegetable, 13.  
Calceolarias, shrubby, 161.  
Canker, 193.  
Carnations, 162; propagating, 93.  
Carrots, how to grow for exhibition, 62; fertilisers for, 66.

Christmas rose, 4.  
Chrysanthemum, the, 158; early flowering, 158; housing, 161, 193.  
Cider orchards, 22.  
Cineraria Radiata hybrida, 34.  
Clare Horticultural Society, 121.  
Clematis, the, 25, 37, 64.  
Climbing plants, 168.  
Clove, the, 53.  
Club root, 81.  
Correspondence, 16, 32, 64, 80, 132, 164.  
Cottage flower garden, 54, 163, 194.  
Current topics, 7, 28, 42, 58, 66, 86, 101, 123, 139, 159, 169, 192.  
Cuttings, striking, 177; under glass, 185; gooseberry, 195.  
Cypripediums, 7.

## D

Daffodils, early, 7; Ard Cairn seedling, 74.  
Damping off in coniferous seedlings, 192.  
Daisy Bush, 137.  
Daphnes, 94.  
Delphiniums, 41; annual, 135.  
Disease in plants, 14, 76.  
Dog's Tooth violet, 71.  
Dwarf trees, Japanese, 67.

## E

Economic brevities, 53.  
Electricity in plant culture, 140, 159.  
Escallonias, the, 58.  
Exhibit, a model for amateurs, 160.

## F

Farmyard manure, 118.  
Ferns, 93; culture of, in pots, 182.  
Fertilisers, note on, 172.  
Flax, 124.  
Floral time-keepers, 98.  
Florence Court yew, 172.  
Flower garden, 12, 31, 46, 61, 77, 91, 110, 131, 145, 161, 176, 193.  
Forestry, Irish, report on, 72.  
Fruit garden, 11, 29, 45, 60, 76, 91, 110, 131, 145, 161, 176, 193.

Fruit, thinning, 91; gathering, 146; as food, 162.  
 Fruit prospects (1908), 104, 108.  
 Fruit trees, summer pruning of, 11; pruning old, 11;  
   ordering, 164; planting, 185.  
 Fritillary Snake's Head, 125.  
 Fuchsia *riccartonia*, 175.

## G

Gaillardias, 125.  
 Garden at Lissadell, 39.  
 Garden in spring, 40.  
 Ginger, 53.  
 Glasnevin gardens in late summer, 136.  
 Goat's Rue, 85.  
 Godetia, 171.  
 Gooseberry sawfly, 76, 97.  
 Grafting, 45, 64, 66.

## H

Hall, Dr. J. Campbell, 121.  
 Harmonious grouping of plants, 124.  
 Hardy shrubs, 165.  
 Herbs, 74.  
 Herbaceous border, the, 39, 60, 84, 70, 124, 154, 170.  
 Hoeing, advantages of, 70.  
 Horticultural shows, hints for exhibitors, 126.  
 House flies, 112.

## I

Iceland poppies, 53.  
 India rubber plant, 68.  
 Insect pests, 42, 60.  
 Irish Forestry Society, 73.  
 Irish Gardeners' Association, 144.  
 Irish yew, 172.

## J

Japanese dwarf trees, 67.

## L

Laburnum, effect of pruning, 157.  
 Lachenalias, 67.  
 Larch disease in Ireland, 24.  
 Linum perenne, 152.  
 Little sermon on sweet peas, 49.  
 Lobelia Morning Glow, 155.  
 Logan berry, 5.  
 London Pride, 87.

## M

Maiden Hair fern, 44.  
 Manure, farmyard, 118.  
 Manuring of crops, 50.  
 Mendelism, 105.

Michaelmas daisies, 154.  
 Mignonette in pots, culture of, 152.  
 Mock oranges, 33.  
 Month's work—January, 11; February, 29; March, 45;  
   April, 60; May, 76; June, 91; July, 110; August, 130;  
   September, 145; October, 161; November, 176;  
   December, 193.  
 Mulching, 75.  
 Mullein, a rare, 171.  
 Mushroom culture, 34; cooking of, 34.

## N

Nasturtium, the, 62.  
 National Rose Society show, 132, 157.  
 New Zealand flax, 170.  
 Notes and abstracts, 14, 22, 42, 57, 67.  
 Notes from a rectory garden, 115.  
 Nutmeg, 53.

## O

Onion growing, 47.  
 Onion, the potato, 92.  
 Orchids, 63.  
 Overcrowding in gardens, evil of, 23.

## P

Peach, leaf curl in, 112.  
 Pelargoniums, Zonal, as window plants, 83.  
 Photographic competitions, awards in, 148.  
 Pinks, border, 84.  
 Planting fruit trees, 29, 185.  
 Plants for rooms, 6.  
 Plants in relation to environment, 188.  
 Plum, the most popular, 153.  
 Potato, leaf-curl in, 14; early forced, 15; resistance to  
   disease, 112.  
 Potato scab, 174.  
 Potato, the new, 9; potatoes, early forced, 15; size of  
   sets in, 195; sprouting, 196.  
 Potentillas, 87.  
 Pruning, 29, 176.  
 Pruning forest trees, 132; old orchard trees, 193.  
 Pyrethrum, 5.

## R

Rainfall for year, 177.  
 Reader, the, 20, 43, 78, 94, 128, 178.  
 Re-afforestation of Ireland, 133.  
 Rhododendrons, greenhouse, 63.  
 Rock garden, late flowers in, 141.  
 Rock plants, 87.  
 Rose, new seedling, "H. Arnytage Moore," 8.  
 Roses, 4, 8, 26, 38, 59, 74, 90, 103, 121, 140, 151, 166, 184;  
   for perfume, 27.



Rose canker, 157.  
 Rosemary, 82.  
 Root-pruning, 161.  
 Royal Botanic Gardens, Glasnevin, notes from, 7, 28, 37, 63, 71, 135, 191; late summer in, 136.  
 Royal Horticultural Society of Ireland, 22, 57, 73, 126, 143, 152, 175, 192.

## S

Salvia, 83.  
 Scab in potatoes, 14, 120, 157, 174, 189.  
 School gardens, 10, 27, 44, 51, 54, 74, 95, 119, 143, 179; in Kildare, 31.  
 Seaside planting, 139.  
 Seeds, storing of, 154; selection of, 32.  
 Seed-sowing in pots, 43.  
 Sex in plants, 159.  
 Shamrock, the, 57.  
 Shrubs, transplanting, 160; hardy, 165; planting on lawns, 182; with coloured foliage, 184.  
 Shows, 148, 160.  
 Slugs and snails, 84.  
 Snowdrop, the, 38.  
 Soap tree, 144.  
 Solanum capsecastrum, 68.  
 Solanum Commersonii Violet, 9, 22.  
 Soil fumigation, 66.  
 Spanish broom, 143.  
 Sparrows, 123.  
 Spraying, 7, 29, 42, 58, 96, 159.  
 State-aided research, 8.

Stonecrops, 55.  
 Strawberries, notes on, 153, 195.  
 Summer pruning of fruit trees, 1, 32.  
 Sweet peas, 20; show of (Dublin), 31; little sermon on, 49; at the shows, 122; best varieties of, 135.

## T

Tillage, importance of, 65.  
 Tomatoes, when to sow under glass, 42.  
 Transplanting, 92.  
 Trenching, 162.  
 Tropical plants, culture of, 190.  
 Tuberous begonias, 59.

## V

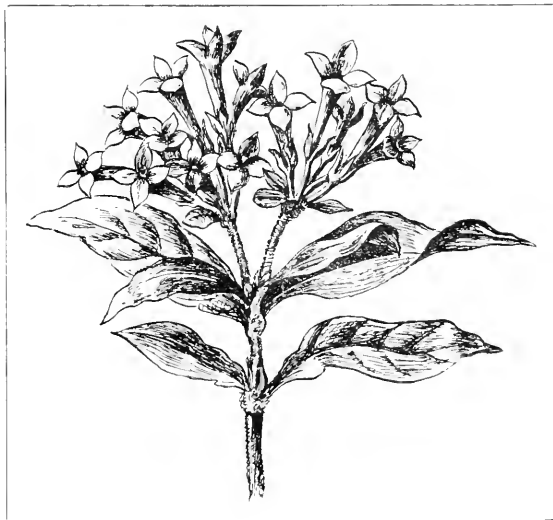
Vegetables, calendar of cultural operations, 13.  
 Vegetables for spring, 147.  
 Vegetable garden, 12, 29, 46, 61, 77, 92, 111, 130, 146, 162, 176, 194.

## W

Wasps, 27, 146.  
 Water in relation to plants, 86.  
 Watering of plants, 88, 189.  
 Water-plants in small gardens, 73.  
 Window-boxes, 3, 79.  
 Winter-berries, 167.  
 Winter flower growing as an industry in Ireland, 3.

## Y

Yew, the Irish, 172; the old, at Crom Castle, 186.



## LIST OF ILLUSTRATIONS

- Seedling H. T. Rose II. "Armytage Moore." Frontis-  
piece.
- Portraits—George Doolan, 11; A. E. Moeran, 18;  
Edw. Cowdy, 20; J. G. Toner, 31; Chas. H. Curtis,  
40; Jethro Tull, 65; E. Knowlton, 126.
- Pyrethrum aphrodite*, 5.
- Solanum Commersonii* Violet, 9.
- Twigs of Ash, 17.
- Sweet Peas—Evelyn Hemus, 21; Audrey Crier, 122;  
Etta Dyke, 123.
- Larch canker, 25.
- Meconopsis integrifolia*, 28.
- Philadelphus Pearle Blanche*, 33.
- A mushroom plant, 35.
- A stem of Brussels sprouts, 36.
- Propagation of clematis by root-grafting, 37.
- Tying a rose bud, 38.
- Garden at Lissadell, 39.
- Delphiniums at Glasnevin, 41.
- Grafting (4 figs.), 45.
- Big bud in black currant, 48.
- Root tip, 51.
- Summer cypress, 53.
- The stonecrop at home, 55.
- Solanum capsecastrum*, 68.
- Propagation of indiarubber plant (9 figures), 69.
- Achillea alpina*, 70.
- Dog's Tooth violet, 71.
- Daffodils, Ard Cairn seedlings, 75.
- A novel apple tree, 76.
- Club-root disease, 81.
- The Oriental Poppy, 84.
- Galega Hartlandi*, 85.
- Making a rockery, 87.
- A layered carnation, 93.
- Gooseberry saw-fly (3 illustrations), 97, 98, 99.
- Budding (9 diagrams), 102, 103.
- Bouvardai, 107.
- Crumkill bog, Ballymena, 113.
- Scab disease in apples, 116.
- Andromeda speciosa*, 117.
- Black scab in potato (3 illustrations), 110.
- Linum perenne*, 124.
- Snake's Head Fritillary, 125.
- A model exhibit of vegetables, 127.
- Chermes, 128.
- A healed wound, 132.
- Annual larkspur, 135, 138.
- Grape hyacinths, 137.
- Nemesia Strumosa* Suttoni, 139.
- School garden, Kingstown, 143.
- The Moorlands, Greystones, 150.
- The "Orchard," Enniskillen, 151.
- Strawberry planting, 153.
- Lobelia Morning Glow*, 155.
- In the garden, Banchory House, 157.
- Athlone show, prize exhibit, 160.
- Spiræa Canescens*, 166.
- Clematis Montana Grandiflora* at Dunshane, 168.
- A rare Mullein at Glasnevin, 171.
- The original Irish yew, 173.
- Potato scab: black scab and ordinary scab compared,  
174, 175.
- Alpine garden, 181.
- Nephrolepis fosteri*, 183.
- Old yew at Crom Castle, 186, 187.
- Escallonia Monte Vidensis*, 191.
- Gooseberry cuttings, 195.

JAN., 1908.

TWO PENCE.

# Irish Gardening

## Contents

	PAGE		PAGE
Summer Pruning of Fruit Trees . . . . .	1	NEW ROSE—COLOURED ILLUSTRATION <i>facing page 8</i>	
Winter Flower Growing as an Industry in Ireland	3	The New Potato "Solanum Commersonii Violet" . . . . .	9
Roses . . . . .	4	The School Garden . . . . .	10
Pyrethrum . . . . .	5	The Month's Work . . . . .	11
Fruit Houses . . . . .	5	Notes and Abstracts . . . . .	14
Plants for Rooms . . . . .	6	Early Forced Potatoes . . . . .	15
Notes from Royal Botanic Gardens . . . . .	7	Answers to Correspondents . . . . .	16
Current Topics . . . . .	7	Correspondence . . . . .	16

### DUBLIN

PRINTED AND PUBLISHED BY JOHN FALCONER, 53 UPPER SACKVILLE STREET.  
 OBTAINABLE AT RAILWAY BOOKSTALLS AND FROM NEWSAGENTS THROUGHOUT IRELAND.  
 WHOLESALE AGENTS: MESSRS. EASON & SON, DUBLIN & BELFAST;  
 GEORGE VICKERS, ANGEL COURT, STRAND, LONDON.



## WINDOW GLASS.

Polished Plate for Shop Windows.  
Ornamental Glass of all Descriptions.  
Horticultural Glass at Lowest Rates.

## DEATH TO THE WEEDS.

HOYTE'S WEED KILLER.

*Strongly Recommended for the Destruction of Weeds, &c.*

Price, 2s. per gallon; 5 gallons, 1s. 6d. per gallon;  
10 gallons, 1s. 3d. per gallon; Original 40-gallon casks,  
1s. per gallon.

HOYTE & SON, The City of Dublin Drug Hall,  
17 LOWER SACKVILLE STREET, DUBLIN.

## FOR Flower Pots AND Horticultural Pottery

WRITE  
**G. J. OWENS,**  
Brick and Pottery Works,  
**ENNISCORTHY.**

Agents for Dublin and District:—Messrs. E. BROWETT & SONS,  
7 Upper George's Street, KINCSTOWN.

All Original Illustration Blocks in  
"Irish Gardening" are executed by  
THE . . .

## Irish Photo-Engraving Co.



Samples and Prices  
for every kind of  
Illustrative Work  
upon application.

Oriel House, Westland Row, DUBLIN.

## NOTICE

### READERS

wishing to bind Vol. II. may re-  
ceive copy of Title-page and Index  
by applying to the Publishers.

"Has stood the test of a quarter of a  
century."

## THOMSON'S Vine, Plant, and Vegetable MANURE.

Only Medal,  
Edinburgh, 1886.



Gold Medal,  
Edinburgh, 1891.

The result of long Practical Experience. Unrivalled  
for all Purposes. This valuable Manure is  
yearly growing in public favour.

ALSO  
**THOMSON'S SPECIAL  
CHRYSANTHEMUM MANURE.**

Perfect Plant Foods.  
SOLD BY ALL SEEDSMEN.

Price Lists and Testimonials on application to  
SOLE MAKERS—

**WM. THOMSON & SONS, LTD.,**  
Tweed Vineyard,  
CLOVENFORDS, GALASHIELS, N.B.

## "A True Plant Food."

GIVES IMMENSE INCREASE IN CORN, ROOT,  
GRASS, FLAX, AND GARDEN CROPS . . .

The ONLY form of NITROGEN that feeds the  
Crop immediately it is applied.

## NITRATE . . . OF SODA

Can be bought of all Leading Dealers  
in Manures.

Pamphlets and information Free on application to  
JOHN SIMPSON, at the Irish Office of the

**Permanent Nitrate Committee,**  
15 Lower Sackville Street,  
DUBLIN.

# IRISH GARDENING



A Monthly Educational Journal devoted to  
the Advancement of Horticulture in Ireland



## Summer Pruning of Fruit Trees.

By F. W. MOORE, A.L.S., Director, Royal Botanic Gardens, Glasnevin.



THE question of summer pruning of fruit trees is one which has recently been largely brought under the notice of gardeners by discussions at societies and by writings in the *Horticultural Press*. The whole subject is certainly of sufficient importance to warrant the attention bestowed on it. On the 15th October last a very important and fully exhaustive discussion on summer pruning took place at the meeting of the Scientific Committee of the Royal Horticultural Society of England. Papers were read by Messrs. Rivers, Spencer Pickering, and A. H. Pearson; and eminently practical market growers, such as Mr. Seabrook (of Chelmsford) and Mr. Smith (of Loddington), joined in the discussion—an important point being that these practical growers, who work in different parts of the country, and who are noted for their success as growers and for the excellent quality of their fruit, both strongly advocated the practice of summer pruning. (For full report see *Gardeners' Chronicle*, October 26th, 1907, p. 299.) Under these circumstances no excuse is needed for ventilating the subject in the pages of IRISH GARDENING.

The following points have to be considered:—

1. What is summer pruning?
2. What are the objects of summer pruning?
3. What are the effects of summer pruning?

It seems natural to suppose that the removal of any parts of a fruit tree—say apple, pear, or plum—during the period of active growth shall be considered as pruning, but many gardeners will not admit this. They maintain that the removal of ingrowing or crossing shoots is not pruning, it is only thinning, or that pinching the points out of the young shoots is not pruning, it is only pinching. This is only

playing with words, and I write on the assumption that the intentional removal of any part of the branch system of a fruit tree, by any means and for any purpose, must come under the head of pruning. If we will only agree on this simple, straightforward definition many misconceptions will be avoided, and the issue can be debated without confusion.

Briefly stated, the practical object of summer pruning is to expedite and increase the fertility of the tree. To understand this we must know how and where the fruit is borne on the tree. In the case of ordinary orchard trees, such as the apple, pear, plum, and cherry, with which alone I am dealing, the fruit is borne on what are technically known as spurs (there are exceptions in the case of the plum). These spurs are simply modified branches—branches which are terminated by flower buds, but in which during the growing season the fruit resulting from the flower bud is pushed aside by a new terminal bud; branches in which the extent of annual growth in length and in circumference is extremely small. Lateral buds are frequently developed on these spurs, and we then have branching spurs. The object of summer pruning is to help to increase the number of these spurs, and to secure that they shall be as evenly as possible distributed over the tree. It must not be assumed that “once a spur always a spur” holds good. Injudicious pruning, either winter or summer, may cause these spurs to “bolt” or “break,” and develop into ordinary growing shoots, which will not bear fruit, but which must in their turn produce spurs before they can help towards the crop. Spurs are usually developed from lateral buds on the growing shoots, and usually from the weaker lateral buds, but buds which have sufficient vitality to grow despite the smothering effects of the more rampant growths of apical, or leading buds, on the same shoot. This is not a universal rule, as owing to such causes as injury to the primary or apical bud during



growth, it sometimes develops into a spur, and very absurd and unnatural such a spur looks; or weak, thin shoots from lateral buds frequently develop a spur at their extremities, these being fat and thick compared to the thin shoots which carry them.

Let us now see if the effects of summer pruning are such as to bring about the object desired. That the summer pruning of wall trees is desirable and necessary is generally admitted and rarely disputed. If a gardener be asked why he summer prunes wall trees he will reply, to keep his spurs short and close to the wall. These objects are reasonable and commendable. Another reason sometimes given is to let the sun and light reach the ripening fruit. To this answer also no exception can be taken. If asked how summer pruning helps, he will explain that removing the leads causes the buds close to the base of the shoot to fill and to develop into spurs. Very similar reasons render summer pruning of trees in the open necessary and desirable. During active growth of the leading shoots, the centre of activity and energy is in the apical or terminal bud. It is there that new cells are being formed, it is there that food is most required, and it is to this point that the food supply is rapidly hurried. Meantime the buds lower down on the older wood get less and less food, and their development is arrested. They are only partially developed, the cell walls become thickened, only a comparatively small portion of tissue remaining capable of growth. Towards the end of the growing season the terminal bud changes its nature. Instead of being a long, soft bud, with young unprotected leaves showing, it becomes round and blunt, and protecting scales instead of leaves develop. This is Nature's process of summer pruning. The buds near the apex are soft and young, and they take advantage of the lessened demand for food; they fill and plump up, and from some of them spurs will be developed next season. Nature's pruning comes too late to be of assistance to the poor starved buds at the base of the shoot. Are these spurs near the apex of the shoot where the fruit grower would like to have them? Certainly not! He will cut most of them away during the winter pruning. The whole object of pruning of every sort should be to get the best formation of tree for carrying fruit and for letting sunlight and air at the fruit; to get the fruit-bearing wood evenly distributed over the surface of the tree, and to have the least possible amount of unproductive wood in the tree. If in summer we remove the leading bud from the most important shoots, with or without a portion of varying length of the shoot itself, we check the direct growth of the shoot, and so food which would be used up by the removed bud becomes available for the

remaining buds, which instead of remaining inert and starved, as otherwise they would have been coerced to, fill up, and become prominent. In the spring, after the winter pruning, most of these buds break into growth. Two or three of those nearest the apex generally develop into ordinary vegetative shoots, the lower ones develop into spurs, and so each year's wood becomes completely furnished with spurs. Had it not been for the summer stopping much more severe winter pruning would be requisite to bring about this result, and in some cases the eyes would be incapable of growing, no matter how hard the shoots are cut back. Great mistakes are often made in summer pruning, and the whole system is consequently discredited. Ordinary intelligent observation must be used, and time and method must be settled accordingly. As to time, no fixed date can be given. An intelligent operator will not prune his trees in the open at the same time that he summer prunes his wall trees. The trees against the wall start earlier into growth. Owing to the protection they derive from the wall and the higher temperature close to the wall for most of the twenty-four hours of the day, if not for all of them, these trees mature their growths early, and so may be pruned early. In the open trees are rarely fit for stopping before the end of July, and it may be the end of August before they can be touched. If pruned too early, the object for which pruning is carried out is defeated. The trees being still full of the energy of growth, this energy manifests itself by causing the eyes from which it was hoped to obtain spurs to break into vegetative growths during what remains of the growing season. To avoid any chance of this some growers never stop the leading shoots, but confine their operations to stopping the laterals. Again, no definite rule can be laid down as to the amount to be removed when summer pruning. In heavy, good soil simple pinching may be, and often is, quite sufficient, as owing to the exuberant vitality of the trees, happy in their surroundings, if several eyes are removed many of the remaining eyes, instead of merely filling up ready to break away in the spring, actually break the same season, just as if they had been pruned too early. On dry, light soils and in exposed situations it may be necessary to remove several eyes.

Owing to the manner in which the buds are disposed on the branches of our hardy fruit trees, it is impossible, unless disbudding were regularly practised, which itself would be practically impossible, to ensure that shoots shall come exactly where we wish them to. Some will develop towards the centre of the tree, some will lie across other branches, and in fact place themselves exactly where they are not wanted. The removal of these is what is

known as "summer thinning," and no defence is needed for it. The following are some of the benefits derived from it. Light and air are admitted more freely to the remaining branches and to the fruit. The size of the wound made by removing a branch before it is fully developed is less than if the branch were cut away at the end of the season, and during the period of growth such wounds heal over rapidly, and do not remain so long open to infection. The loss of reserve material laid by in the tissues is not so great.

It would take a whole number of IRISH GARDENING to go fully into the details and principles of summer pruning, and I have merely here attempted to give a brief, and I fear very imperfect, outline of the subject, but one which I hope may be taken as a plea for a rational and impartial trial of the system, always remembering that it is the abuse, and not the rational use, of many practices which brings discredit on them. That this is the case not only with summer but with winter pruning is. I regret to say, only too amply demonstrated by the condition of the fruit trees in many of our gardens.

## Winter Flower Growing as an Industry in Ireland.

MANY thousand pounds' worth of flowers are coming every year into the English and Irish markets from abroad which could equally as well be grown, and in some cases better grown, in favoured situations in Ireland. To ascertain what flowers are selling in the winter and spring markets we should study the columns of a paper like the *Fruit-grower*. There are three winter flowers which can always be grown at a profit—*Violets*, *Anemone fulgens*, and *Snowdrops*. Of the three named, the writer can specially recommend the *Violet*. For many reasons this flower can be better grown in Ireland than elsewhere; it is also a more profitable flower here, lasting from early October to mid-April. There is no other flower either here or elsewhere with such a long season in profits.

*Violets* should be grown in well-raised beds, about 3 feet 3 inches wide, 14 inches plant to plant, soil as rich as possible, 40 loads good stable manure to the acre. Use sea sand in quantities wherever possible, especially when the land is heavy; ashes are good, too, in very cloggy land to make the soil more porous. Plant rooted runners, but this is not essential in such large-flowered varieties as *Princess of Wales* and in *Luxonne*, as the writer uses good strong unrooted runners with great success. Of varieties, three good sorts are *Luxonne*, *Californian* and *Avellan*. *Luxonne* is the finest violet I have yet handled, blooming from mid-October to mid-April, standing 10 to 12 degrees of frost with impunity when *Princess of Wales* would be almost ruined (this variety is only useful as an out-of-door violet in sheltered garden positions). *Avellan*, purple, is a good violet; its leaves are specially adapted for bunching in mid-winter (blooms October to end of February, and later sometimes). *Californian*, blue, excellent from mid-November to end of season. After getting runners planted it is essential that they should be well weeded through the season. Care must be taken when weeding that the young roots are not disturbed. Bunching violets is

quite a special knowledge. A good plan for a novice would be to buy two or three bunches from a good florist, and so see how the bunches are made up. After bunching, violets should remain in water at least a couple of hours before being packed. In packing, a line of grease-proof paper should go all round the inside of the box, so as to keep the air from the flowers. In marketing, a successful man will get hold of a good florist or two and send the balance to commission agents. Boxes should be bought in the flat, and can be had from any of the large timber merchants. Of all winter flowers yet grown in Ireland the violet is, I should say, the best—(1) for the length of time in flower, October to April; (2) conditions of the climate here are altogether favourable; summer rains and autumn mists produce the finest development, so that early autumn finds an immense plant of vigorous nature, giving flowers of great beauty of form, depth of colour, and scent unsurpassed by any foreign flower. The hardiness of the violet is astonishing. Last winter, with 14 degrees of frost one night and 7 degrees the following, I picked 7,000 *Luxonne* violets the same week from a quarter of an acre patch. The soil was dark, and dark soils are certainly the warmest.

*Success in Flower Growing.*—The best advice I can give is to begin in a small way, learning gradually while increasing your area in flowers. Method and energy are two great factors. Buyers require to have their flowers punctually delivered, and their bunches of uniform size, having a good fresh appearance when unpacked. Flowers should never be packed wet; this is a very important point. Size of bunches always the same (unless towards the end of the season, when with a heavy competition larger bunches are usually required). Gardening papers are often misleading on this point, advising one not to trouble about counting violets, whereas it is really but very little trouble, and the grower would not know how to instruct his men to pick unless he calculated quantities by his different orders.

J. W. MILES.

Green Mount, Ballydehob, Co. Cork.

## How to Furnish Window Boxes in Winter.

THIS seems to be a question often asked, as so many people are inclined to allow the old geraniums and other occupants of their boxes to last as long as they will when they have done their "bit" during summer and early autumn, and even after frost has "done for them" we often see their "remains" standing like so many dead twigs. Now, all this can be easily remedied by taking the matter into consideration some time in October, and if the soil in the boxes is poor it should be emptied out and replaced with some good loam, leaf soil and old manure, making sure to see that the drainage is perfect. Then we must think of some nice plants or bulbs to place therein, and from the following list there can be selected enough to please anyone's tastes:—*Veronicas*, *Euonymus*, wallflowers, *Myosotis*, pansies, ivies, anemones (especially *St. Brigid*), iris (Spanish), hyacinth, *Narcissus*, and tulip. In planting all or any of those it is advisable to keep them so that one colour will not clash against another—say, for example, *Tulip Bouton d'Or*, carpeted with *Myosotis*. The yellow flowers of the former look charming over the blue of the latter. It is also well to note in the arrangement of subjects for this purpose to place the tallest plants in the centre of the box so that the occupants of the house can have a good side to look at as well as the passers by. Watering is also very important, but in most winters the watering cans will get a rest.—B. G.

The species of *Lavender* cultivated for oil is *Lavandula vera*, an evergreen shrub about 2 feet in height. It loves an open situation and a dry soil.

## Roses.

By O'DONEL BROWNE, M.D.

NOW and then during the last two years that have gone by references have been made in these short notes of mine to various books, written by our most ardent rose growers, dealing exclusively with the rose. Inasmuch as I consider that no person can really grow roses to perfection without having read, marked, and learnt these books, and inwardly digested them as well, I hope I may be permitted to put would-be growers on the track of something well worth studying these bleak nights, for I do really think that were it not for these books we should be plodding along paths of semi-darkness, and we owe a tremendous lot of thanks to our rose growers, some of whom unfortunately have gone to the majority. Let us hope there are rose-fields there for them to give us tips in when we arrive.

Of the many books which I have read, I think I am voicing the majority of rose growers when I put the late Rev. Foster Melliar's book on the Rose first on the list, both for clearness and terseness. I have often read it, and the more I do the more I see clearly how deep he trenched the soil of his mind. There is not from beginning to end of the book, one passage that a child could not understand. It is profusely illustrated with photos of our best roses which it would well repay intending exhibitors to study. These plates and the chapter on exhibiting should be most carefully studied; there is a mine of useful information in them, especially to those amateur growers who annually stage roses at our country shows. Therefore, amateurs read this book—I might almost say learn it by heart.

Next on the list comes the book by the late Dean Hole. There are many people who would plant this book first on the list. I have not done so, though I possessed a copy of his book long before I owned any other. My reason is this. To really understand the Dean's book you must know a good deal of rose-culture. When you have read other books, then refer to the Dean's. In his book you get the finishing touches and a great deal of wit. Nothing will pass over a dreary winter's night quicker than reading this most worthy book. It is a great pity it is not more fully illustrated; but we must not look for too much.

Undoubtedly the most comprehensive and best written and worked out treatise on rose growing is found in the "Rose Garden," by the late William Paul. He differed from the two previous named writers in that he was a professional—being one of that most worthy and honoured firm of Paul and Sons. Here you may find anything or everything, save self-glorification. It is a wonderful work (I believe it took him years to write it), simply teeming with knowledge. It has often puzzled me why other books were ever written after his, but, at any rate, the late Dean's and Foster Melliar's books have plenty to recommend them. Its one drawback is the large size, being a work you cannot hold up well and read before a fire—a most comfortable position these nights. It is especially useful as a reference book, and should be—I am sorry I have not one—in everyone's collection. The edition I was lent was rather old, and I am told that later editions are well up to date. In last month's article I mentioned "Roses for English Gardens," by Miss G. Jekyll and Edward Mawley. Miss Jekyll is well known to be an able writer, and what more can be said for Mawley, than there are few more able rose growers in all England. He is the worthy secretary of the N. R. S. and a hard worker. This book is most profusely illustrated, in fact, too much, in my humble opinion—but it is hard to get too much of a good thing. On the subject of growing roses for the garden's decoration, Miss Jekyll gives valuable information, which you find glossed over by Dean Hole and Foster Melliar.

The second half of the book deals with growing roses for the exhibitions, and in it, though only dealt with in a very short manner, one can easily see that a veritable past-master is dealing with this most difficult subject. The plates in this half are good—one, especially, of "Ernest Metz" being grand.

There are other books on rose-growing, some of which I have reviewed for this paper, which give useful information; but in my opinion, if any rosarian cannot get along well with those I have mentioned above—well let him give up. I cannot close this article without letting my readers know that in the dim future there is to come, so I am told, a book by the Rev. J. H. Pemberton, and when it does come we may expect something grand. Mr. Pemberton is the second biggest amateur lion in England, and when his book comes—we will see how he roars!

## The Christmas Rose.

THIS is of course, not a Rose at all but a Hellebore belonging to the same family as anemones and buttercups. Its flowers are so strikingly handsome, and as they appear at a time of greatest scarcity of colour in the garden, one wonders why the Hellebores are so relatively scarce in this country. Once they are well established in a suitable soil and situation they require little or no attention afterwards. The soil they like best is a deep, rich loam that will yield a liberal supply of water during the growing season. As to situation, it must be such as will afford protection from direct sunlight during the hottest part of the day. The most commonly grown species is *Helleborus niger altifolius*. The flowers are large (4 or 5 inches across), and of a pure white colour, shaded with pink. This particular plant is not native to the British Isles (its home being in mid-Europe), but there are two native species, the green Hellebore and the Stinking Hellebore or Bearsfoot. All the Hellebores are undoubtedly poisonous, the Stinking Hellebore being particularly so—indeed the name means in Greek "to injure" and "food." In reference to this distinctive property the black Hellebore (*niger*) has been famed for its medicinal properties since quite ancient times, and apparently not always judiciously dispensed, as we find one writer saying "it is used by venturesome quacks in decoction and coarse powder to kill worms in the body, which it never faileth to do; where it killeth not the patient it would certainly kill the worms; but the worst of it is it will sometimes do both (!)"

In the play of "Romeo and Juliet" Shakespeare puts into the mouth of the Friar in his speech to Juliet the symptoms of Hellebore poisoning, graphically detailing what may be expected as the immediate result of swallowing the contents of the phial, thus:—

"Through all thy veins shall run  
A cold and drowsy humour, which shall seize  
Each vital spirit; for no pulse shall keep  
His natural progress, but surcease to beat;  
No warmth, no breath shall testify thou livest;  
The roses in thy lips and cheeks shall fade  
To pale ashes; thy eyes' windows fall  
Like death, when he shuts up the day of life."

Do gardeners realise that the soil supports an enormous population of germs—in other words, that we have in our soils thickly growing crops of extremely minute plants? It is these germs or bacteria that digest, as it were, the insoluble foods in the soil and make them fit to be taken up in solution in water by the roots of our cultivated crops. It is estimated, for example, that in a well-drained and properly cultivated field the bacteria living in the soil liberate, and so make available for the use of crops, about 42 lbs of nitrogen per acre each year. But to enable them to do this valuable work the soil must be kept well drained and well cultivated, as abundance of air in the soil is one of the chief factors in the promotion of good bacterial growth.

## Fruit Houses.

**VINES.**—To those having more than oneinery this is a good time to start the earliest one, in which the vines should have been well washed (the caustic soda wash is excellent), and the house cleaned and lime-washed. Give a night temperature of 50 degrees and a rise during the day or from sun of 10 degrees or 15 degrees more. A gentle syringing of the vines morning and afternoon is of much assistance, but on cold or wet days only damp down the house, and if weak liquid manure is used in the afternoon for damping down so much the better. If the borders are outside give a covering of leaves one foot thick, and place over it some stable manure. Some growers only put a few inches of manure over the border to exclude frost, but the leaves and manure give a gentle heat. If there are inside borders give a good watering with tepid water and liquid manure.

**PEACHES AND NECTARINES.** The earliest varieties will be swelling their buds, so that they will be showing colour, and now the syringe must only be used lightly on fine mornings, damping down as usual at closing time. As the blossoms open it is well to go over the flowers of varieties that do not set freely about noon, either with a rabbit's tail or camel-hair brush, and gently dust the flowers so as to aid in getting a good setting of fruit. For most varieties a gentle tap on the wires on fine days is sufficient aid to the distribution of pollen and to fertilisation. A temperature of 50 degrees at night and 60 degrees by day should suit till the fruits are set. W. T.

## The Logan Berry.

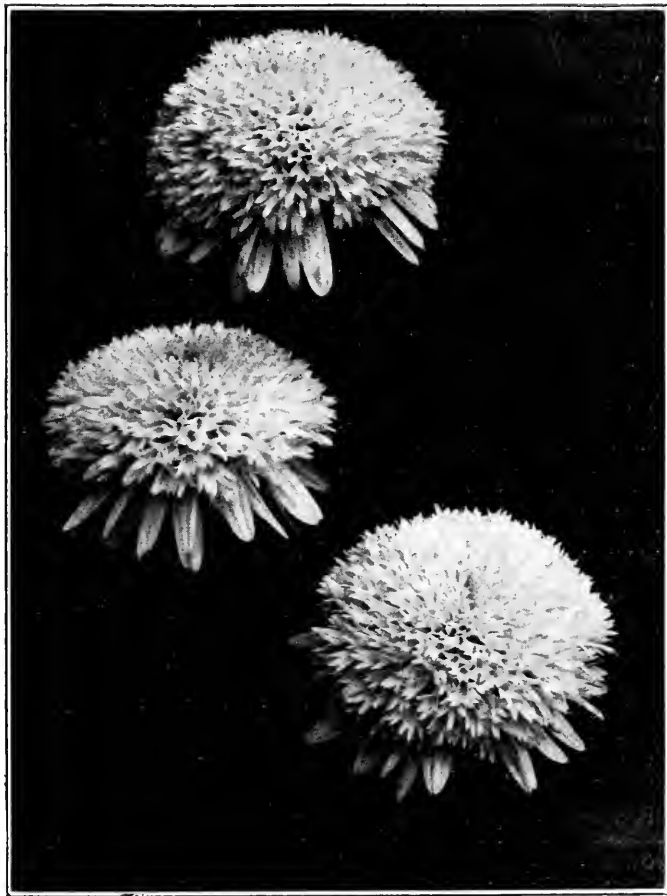
THE Logan berry is a most useful subject which is not by any means difficult to cultivate. It is the result of a cross between the red raspberry and blackberry. The fruits, which are large, sweet and handsome, are borne on the growths of the previous year. It will be found to constitute a pleasing addition to the dessert list, and may also be adapted for making an excellent preserve.

Planting may be performed any time from November to February, but the earlier the better; it succeeds admirably if planted against a wall with a north or north-west aspect, allowing a distance of six feet between the plants. A good, rich soil is most essential for its well being, and a liberal mulching of farm-yard manure applied about November will also be found helpful. After planting, the canes should be cut back to within 18 inches of the ground for the purpose of inducing good, strong shoots to be obtained. The variety "Phenomenal" is well worth having. G.B.

THE English Board of Agriculture and Fisheries have issued an order dealing with gooseberry mildew. It prohibits the landing in Great Britain from places abroad of any gooseberry or currant bush, and states that offenders against the order will be liable to a penalty not exceeding ten pounds. The order came into effect on the 14th of December last.

## Pyrethrum.

THIS is one of our hardiest and most useful herbaceous plants, and should have a place in even the smallest border. They succeed well in almost any garden soil, but a rich, deep, and rather heavy soil is most suitable. The best mode of propagation is by division of the clumps in early spring. Being of medium height, from 1½ to 2½ feet, they are very suitable to plant in long lines, where they look ornamental, as separate plants in the border or as in



*Cephus & S.*

### Pyrethrum Aphrodite.

*From a photograph taken in Messrs. Kelway's Nurseries.*

large groups or beds, where they are very effective. Few plants flower so freely, and by cutting back the old flower spikes in June, and giving the plants a watering with liquid manure at weekly intervals during dry weather, they will throw up fresh growths and produce fine flowers well into the autumn. There is very little botanical difference between Pyrethrum and Chrysanthemum, except that the fruits of the former are provided with a bunch of hairs or "pappus." Of late years much improvement has been effected in Pyrethrums, and they can now be had in almost all colours, of both double, single, and anemone-shaped flowers.

The blooms here illustrated are those of Pyrethrum Aphrodite. It is a double variety of purest white, and was raised by Messrs. Kelway of Langport. W. I.

## Plants for Rooms.

By C. WAKELY, Horticultural Instructor, Essex County Council.

**P**LANTS for rooms! The mention of them brings to our minds the many beautiful effects produced by plants when used for in-door decoration. Yet the memory of these effects is often marred by the further knowledge that the beauty of the plants all too quickly passed away. This may possibly have discouraged some readers from pursuing the subject any further. I therefore wish to write in order to encourage such, as well as those who have avoided the work entirely on account of its supposed difficulty.

Let me first say that a long experience in dealing with the growers of room plants has shown me that the first essential to success is a real interest in plants as living things. This naturally leads to a study of their modes of growth and requirements, which will help one far more than mere adherence to "cut and dried" rules.

Whence shall we obtain our plants? A serious question indeed! Yet, as a rule, it is easily answered by the keen cultivator. It is usually not long before he meets with a kindred spirit, and then the subject of cuttings or seedlings somehow gets raised, and if only a single pelargonium cutting is thus obtained the learner may make a good start with this. Additions are likely to be quickly made, as I confess that plant lovers are generally pretty good hands at begging.

If plants are bought, do not select those in full bloom, but rather young ones for growing on, as far greater interest attaches to such specimens. Remember that two great changes will probably be experienced by the plants when brought from a greenhouse to a room. The air will generally be much drier and the supply of light will not be so good. Take all possible care to avoid sudden checks to growth by means of draughts. Never carry out re-potting of the newly-purchased specimen, rather watch its behaviour, and get it thoroughly used to the new conditions first. Attention to these points will mean a great deal to the beginner.

**Soils for potting!**—What a bogey to the amateur! specially so if he has read of the mixtures often recommended for greenhouse plants; but let him always bear in mind that, providing the pots used are so drained that stagnant moisture cannot accumulate in them and an open soil is used that will admit air to the roots, and he is practically sure of a measure of success. Sods of turf which have been cut for a few months in order to kill the grass will generally form a good foundation for the pot-

ting mixture. To this about one-third of its bulk of pure leaf-mould (decayed leaves, not rotten wood!) may be added for most plants, although a coarse grower such as the arum lily will appreciate some rotten manure instead. Sand is usually a good addition in order to render the mixture porous. Let it form from one-tenth to one-sixth of the bulk, according to the character of the turf. For seed sowing and the planting of cuttings a rather fine soil is desirable, but for general potting too much is yet heard about sifted soil. Always use the compost in a moist condition, so that it can be pressed into the pots rather firmly, but never use it whilst in a wet, sticky state.

Pots should be clean and well drained with "corks" or bits of brick. Over these place some of the coarser particles of the soil so that the drainage will remain clear. Beginners should specially avoid using too large a pot—mistaken kindness of this sort has been a very common pitfall for the unwary. When your cuttings are well rooted place them singly in pots which will nicely accommodate the roots. Note their progress, and hence the demand for larger pots. Similarly, when purchased plants have made themselves at home, pots of one or two sizes larger may commonly be given if the roots have thoroughly taken possession of the old soil. Avoid potting in late autumn and winter.

**Watering.**—A volume might well be taken up with this subject, and still the reader would fail in his work unless he learnt to read the plants. The amount of leaf surface exposed to sunlight will chiefly determine the quantity required. Newly potted or pruned plants will need less water for a time. The amount of moisture in the air will also be an important factor in the case. When watering always fill the space left at the top of the soil for the purpose (about  $\frac{3}{4}$  inch in depth in a 5-inch pot). Specially avoid exact rules for watering. I frequently attack the rule, which runs as follows—"give a little water every day," as it never helped to grow plants.

Suitable plants are numerous, yet certain of them stand out as pre-eminently satisfactory for our purpose. Of foliage plants choose *Aspidistra lurida* and its variegated form, *Fatsia (Aralia) japonica* and *Chlorophytum elatum variegatum*. Master these, and then go on to the Dracenas and perhaps the India-rubber plant (*Ficus elastica*).

Of ferns, commence with *Pteris serrulata* and its varieties (ribbon ferns), *Pteris tremula* and *Asplenium bulbiferum*. Proceed from these to the *Adiantum* (maiden-hair).

Many shrubs are available, such as *Fuchsia*, *Coronilla glanca*, *Solanum capsicastrum* (winter cherry), and *Heliotrope*. These may all be improved by a pruning into shape just before new growth starts. Re-pot these plants just after the young shoots show, removing a good deal of the old soil.

Of bulbs, *Fallola purpurea* easily stands first as a



room plant. When in good health do not be too eager to re-pot it. Pots of hardy bulbs such as tulips, narcissus, and hyacinths may be readily brought forward in the window in early spring. Select good bulbs, pot in early autumn, and plunge out of doors until well rooted (about six or eight weeks).

Tuberous begonias are good in light windows, but must be sparingly watered as growth starts. During the summer they are very thirsty subjects. Arum lilies are good for roomy windows. Strong plants of these are preferably rested in their pots during summer; weak plants or divisions may be strengthened by being planted out in late May in rich soil, potting them up again at mid-September.

For baskets and hanging pots *Oxalis*, *Tradescantia*, *Campanula isophylla* and *isophylla alba* and *Asparagus sprengeri* are excellent.

Cacti in variety are at home in a dry air, such genera as *Phyllocactus*, *Epiphyllum*, and *Echinopsis* being often seen in windows. Give little water in winter.

Last, but not least, the pelargoniums must never be lost sight of on account of their great usefulness. Remember that these enjoy an abundance of sunlight.

## Notes from Royal Botanic Gardens, Glasnevin.

By R. M. POLLOCK.

### Cypripediums.

THESE *Cypripedium insigne*, or Lady Slipper orchids, are, perhaps, better known to the general gardener than many of the others. Among the very good collection which has been collected from time to time by the Curator of the Botanic Gardens, Glasnevin, are some of the best of the yellow forms. Amongst these are *Cypripedium insigne Sanderæ*, Laura Kimball, Mrs. F. W. Moore, Ernesti, Chantini, Lindeni, Citrina and others. The accompanying photograph shows a plant of *Cypripedium insigne Sanderæ* with four good flowers.

*CYPRIPEDIUM MAUDLÆ*.—One of the most beautiful of them all. A hybrid between *C. Lawrencianum Hyenauum* and *Callosum Sanderæ*; colour, a clear green on a pure white ground. In 1901 it was exhibited before the Royal Horticultural Society, when it was awarded a first class certificate.

Among the spotted forms of *C. insigne* are the following—Black Prince, Gilbertii, and Harefield Hall, very beautifully marked with chocolate, and of which I enclose a photograph.

### Early Daffodils.

THE following daffodils will be found useful where early flowers are wanted:—

*N. pallidus præcox*.—Sulphur yellow (see note in IRISH GARDENING, April, 1906).

*N. minor*.—A very pretty, small, yellow trumpet, not more than six inches high. A good clump can now be seen outside the large greenhouse.

*N. cervantes*.—Taller than the two above-named yellow trumpet, one of the earliest tall yellows.

*N. Ard Righ*, Henry Irving, and *Obvallaris*, all good doers, and excellent for early grass work. All three are good yellows.

Golden Spur, bedded out, makes a good show. This is a good, strong daffodil, and should be in every garden.

*N. cyclamineus*.—A very dainty species, with bright, golden, reflexed flowers. A few bulbs have been naturalised in the grass around the new rockery, and seem inclined to establish themselves.

## Current Topics.

By PETER BROCK, Orchard Terrace, Enniskillen.

THE close of the year is a fitting time for retrospect and studying the lessons obtained during its course; the beginning is the time to formulate our ideas to improve on past efforts. Carefully defined plans at the opening of the year are a great assistance through the year's work; still partial failures or disappointment may occur through no want of forethought, but it is from such failures the best lessons may be learned.

IT is the general opinion of the oldest gardeners and farmers that the past year was colder than 1879, some asserting that it has not been equalled for the past 65 years. The absence of sunshine and consequent low temperature during May and June had a chilling and retarding effect on vegetation. The warm spells experienced during the latter half of July, and again in September, came in the nick of time to save some important crops from failure. It rallied the apple crop to such an extent that two of the largest growers of Bramley in this county (Fermanagh) secured the heaviest crop they have ever obtained. The success of those growers in such an adverse season is due to the efficiency of winter spraying, thereby saving the blossom from the ravages of caterpillars and apple sucker. The latter pest appears to be causing as much if not more damage in recent years than frost; its effect on the blossom so nearly resembles injury by frost that failures are sometimes attributed to the wrong cause. Fruit growers are gradually beginning to recognise that to get full crops of fruit they must spray, and in neglecting to do so they incur the risk of both quantity and quality being considerably reduced.

THE favourite winter spray fluid last spring was composed of  $3\frac{1}{2}$  lbs. sulphate of iron (green copperas), 5 lbs. caustic soda 98 per cent., 1 gallon paraffin, 19 gallons water, prepared as follows:—Dissolve the sulphate of iron and caustic soda, each separately, in half the water; add the paraffin to the sulphate of iron, and churn vigorously for a few minutes, then add the caustic soda, and one minute's churning will thoroughly mix. A worn out brush-head, with two strong slats nailed crosswise, makes a capital substitute for a churn dash.

A DESIRE for experimenting is a healthy sign of progress. There is some speculation at present as to which of the winter spray fluids is most effective on fungoids and the eggs of injurious insects. This point, however, can only be decided by further experiments. A favourite for trial among new winter spray fluids appears to be Cooper's VI. This is a proprietary preparation, ready for diluting with water. It is recommended by Mr. Walter E. Colling, M.Sc., F.E.S., Birmingham University, in his "Report on the Injurious Insects and other Animals observed in the Midland Counties during 1906," as a winter spray fluid of great penetrative power. Several experiments will be tried in this county to test its effect on American gooseberry mildew during the dormant period.

THE sprouting of seed potatoes for early and main crops passed the experimental stage very satisfactorily last season, the result in many cases amounting to nearly double the yield of better matured table potatoes than from the old system.

## "IRISH GARDENING."

AN ILLUSTRATED MONTHLY.

OFFICES—53 UPPER SACKVILLE STREET, DUBLIN.

**Publishing Date.**—First day of each month.

**Subscription.**—3/- per annum, post free.

**Editorial.**—All Editorial Communications, copy, and photographs should be addressed to "The Editor."

**Business Communications.**—All letters regarding Subscriptions, Advertisements, and other business matters must be addressed to "The Manager."

**Wholesale Agents.**—Newsagents will please send their orders for Copies to either Messrs. Eason & Sons, Dublin and Belfast; Messrs. M. H. Gill & Son, Dublin; Messrs. Robb & Co., Belfast; or Messrs. News Bros., Cork.

**London Agent.**—Mr. G. Vickers, Angel Court, Strand, London.

**Remittances.**—Postal orders, cheques, &c., should be crossed and made payable to The Manager, "Irish Gardening."

**Notice.**—As the Post Office regulations will not permit the registration of "Irish Gardening" as a newspaper, readers will please note that it cannot be sent through the post for a halfpenny.

### Our Coloured Illustration.

Seedling H. T. Rose—"H. Armytage Moore."

THIS is described by the raiser, Mr. Hugh Dickson, Royal Nurseries, Belfast, as a Garden Rose *par excellence*, and is an outstanding example of latter-day efforts of the hybridist to give us a type of rose with vigorous growth, great freedom of bloom, and a thoroughly perpetual habit, with that long-pointed bud and handsome foliage which are two of the most essential qualities of a rose for massing in the garden. The flower is of great depth, with large shell petals, nicely reflexed at the edges; the colour is a delightful shade of rosy pink on the outside of the petals, the inside of the petals being a bright, silvery pink. As a decorative or bedding rose this is a most valuable addition to the Hybrid Teas. O'D. B.

### State-aided Research.

THE value of agricultural research is recognised in the United States. Under the Hatch Act of 1887, and since that date each State has received from the National Treasury a sum of money for the upkeep of an agricultural (and horticultural) experimental station. The influence of station work upon the farming prosperity of the country has been so marked that by a new Act (the Adams Act) Congress has recently voted to each State, *solely for research*, a very substantial additional annual grant. It starts at £1,000, and increases by £400 yearly until it reaches £3,000. In addition to this Treasury grant each State contributes direct a substantial sum yearly to the station work. It is not generally known that in the matter of Agricultural and Horticultural research Russia has at present the largest number of experimental stations of any other country in the world, and that too in spite of the fact that they are all of compara-

tively recent origin. Japan, quick to recognise what is good in Western methods, is rapidly developing a similar system; she has established as many as 60 such stations already. This go-a-head nation apparently means to do all she can to develop the resources of her soil and so secure for herself a fair share of the markets of the world. What about Ireland? There is not a single agricultural research station in any of its provinces, although it is a country whose prosperity almost wholly depends upon the produce of its soil.

WITH reference to the correspondence that has arisen in our pages concerning fruit-trees, the moral seems to be—go to a reputable firm of nurserymen (there are plenty of them advertising from month to month in this Journal), state your requirements, and inform them that you hold them responsible for the quality of the trees, such as their being well grown, of the age stated, true to name, and free from disease. These firms have a reputation at stake, and are extremely unlikely to do other than serve you well. Be prepared to pay a fair price, and do not rush after "bargains."

THE etherisation of lilac and other shrubs with the object of forcing the flowers into early bloom is well known. Recent experiments in the etherisation of strawberries not only secured earlier fruits but heavier crops.

AT the Colonial fruit show, held in London on the 28th and 29th of November last, a very large and very handsome display of apples from British Columbia attracted universal attention. They were nicely graded and packed, beautifully coloured, and mostly exhibited in the original cases that had stood a journey of over 6,000 miles.

AN extensive experiment on the cold storage of nursery stock has been tried in America. Some thousands of grape vines were raised and winter-stored in ordinary store-houses. During the summer they were put on cold storage (from 28 to 34 degrees Fah.) for three months and nineteen days, after which they were taken out and again kept in ordinary store-houses until May, when they were planted. The experiment was "successful" in every way.

THE fourth annual dinner of the Dublin Seed and Nursery Employees' Association was given on Saturday evening, the 7th of December last, at the Gresham Hotel. Covers were laid for 150 members and guests. Mr. D. MacLeod (of Messrs. Drummonds), the president for the year, was in the chair. There was a very full after-dinner programme—speeches, music, distribution of prizes, and, most popular of all, the presentation of a silver-mounted pocket book, "lined with Bank of Ireland notes," to the strenuous Secretary of the Association, Mr. McDonough.

THE literary staff of the *Gardener* has presented Mr. Walter P. Wright with a handsome stationery cabinet on the occasion of his resignation of the editorship of that paper. Mr. Wright was the first editor of the *Gardener*.

AMERICA leads the world in the production of wheat—735,261,790 bushels being her 1906 crop.



*(Size reduced one third)*

Seedling H. T. Rose  
"H. ARMYTAGE MOORE"

Raised by  
HUGH DICKSON  
Royal Nurseries  
BELFAST



# The New Potato

## "*Solanum Commersonii* Violet."

By GEO. H. PETHYBRIDGE, Ph.D., B.Sc.

SINCE a good deal has been heard during the last couple of years about a new potato with the above name, a short account of its origin may prove interesting. The French botanist, P. Commerson, discovered, soon after the middle of the eighteenth century (1767), a wild solanaceous plant growing on the shore near Monte Video, in Uruguay (*i.e.*, on the eastern side of South America) the wild plant from which the ordinary potato has arisen being found on the western side of the Andes), which he at first thought was a kind of tomato. The plant was named in 1816 by Professor Dunal in his monograph of the Solanaceæ, *Solanum Commersonii*, after its discoverer. Subsequently, it appears to have been introduced into France on three separate occasions — first in 1822, then in 1881, and lastly, in 1896. On the last occasion unnamed tubers were sent to the Uruguayan Consul in Marseilles, and these, planted in the botanical gardens of that city, were found by the Director, Dr. Heckel, to produce *Solanum Commersonii* plants. Since this time Dr. Heckel has cultivated the plant every year, and has made careful studies of it with regard to its botanical characteristics and to its geographical distribution, and in one of his papers he speaks of it as the "aquatic potato of Uruguay." He has also distributed its tubers to other growers, and some of them were grown, we believe, a few years ago in the Botanic Gardens, Glasnevin.

Professor Wittmach, in Berlin, cultivated the plant there for some seasons, but with little success as regards improvement in size of the

tubers and in other qualities which might have led to its introduction as a commercial variety. In Marseilles, however, the plant gave, as time went on, larger and better tubers, which were richer in starch and which lost to a great extent, but not entirely, the bitter taste of the original tubers. At the same time they remained exceedingly tough, and were not softened even after boiling for some hours.

More favourable results were obtained by M. Labergerie, of Verrières, in west-central France, who thinks that the species is worthy of attention as a starting-point for a commercial potato

suitable to wet and boggy lands. It may be mentioned in passing that this wild species is not immune to the blight (*Phytophthora infestans*), although naturally during the first few years of its cultivation it suffered less from this fungus than varieties of the common potato which have been long in cultivation.

The ameliorations which this wild species presented during a few years of culture by M. Labergerie were, however, as nothing when compared with the transformations which it underwent during the same time.

These transformations were observable in the aerial parts of the plants as well as in the tubers, and were very numerous, especially in 1904.\*

But up to 1905 the only one of these transformations which had really become fixed was one in which violet-coloured tubers were borne, which had appeared as a sport in 1901.

Amongst the plants of the wild *Solanum Commersonii*, grown in this year by M. Labergerie from tubers supplied by Dr. Heckel, was one which was conspicuous for its greater size, and for the fact that it bore near the surface of the soil two tubers of a blackish violet colour, totally unlike those of the original wild tuber. The

\* Curiously enough, none of these transformations of the wild type noticed by Labergerie in Verrières were observed by Dr. Heckel in his cultures in Marseilles.



The New Potato "*Solanum Commersonii* Violet."

tubers from this plant were preserved separately, and during the following seasons a commercial stock was raised, which is now on the market as *Solanum Commersonii* Violet. We have no space to enter into a description of the new variety here, but the illustration will give an idea of one of the tubers. M. Labergerie claims a number of important points in favour of his new variety, one of them being its special suitability for wet situations, and another its practical immunity against blight. Should these claims be established and other things be in its favour, it would seem to be an ideal potato for culture in Ireland. It must, however, be stated that by many experts, including such authorities as M. Vilmorin, of Paris, and Mr. Sutton, of Reading, this Violet variety is considered not to be a novelty at all, but to be merely an old variety reintroduced—namely, the *Blaue Riese* (*géante bleue*, Blue Giant), raised some years ago in Germany by Herr Paulsen. M. Labergerie, of course, vigorously contests this, but when the two varieties are seen growing side by side in this country, and when carefully compared, including their tubers, it is almost impossible to find any substantial difference between them. The differences are no greater than frequently occur in plants of one and the same variety of potato grown from “seed” emanating from different sources. As regards immunity to blight, this is far from being the case with the Violet variety in Ireland. We have seen the foliage of plants derived from tubers imported direct from M. Labergerie quite seriously attacked during the past season, and this in spite of twice spraying. In addition to this, many of the new tubers derived from these plants have been found to contain the blight fungus.

During the past season the Department of Agriculture in Ireland has been carrying out an extensive series of experiments with this Violet variety, and when the report of them appears further important information on the matter should be forthcoming.

### The School Garden.

By L. J. HUMPHREY, Special Instructor in School Gardening under the Department of Agriculture and Technical Instruction for Ireland.

IN January most of the past season's crops will have been removed, and active preparations should now be made for the spring and summer work. During the preceding months most of the ground will have been dug, with the surface left rough in order that frost may penetrate. The effect of the weather will now be apparent on the soil surface, many of the rough lumps being already pulverised and making evident the value of the practice in

view of the seed-sowing to be commenced as soon as local conditions will permit. If trenching or bastard trenching has not yet been done, an early opportunity should be taken to get some portion, at least, of the plots treated in this way, if only for the value of the lesson to the pupils. While this work is proceeding it will be easy to invite attention to the depth and character of the soil and subsoil, and to make clear something of the origin of the soil and why the two spits differ in character.

In the school garden, as indeed in all gardens, system is a most important factor in the success or otherwise of the crops, and to secure that the season's work should be systematically carried out deserves some thought and attention. Each day's work and each lesson should be a part of a connected whole, tending to arouse or increase the interest of every child in the school in plants and how they grow. For convenience, only a selected few of the children should be allowed to work on the plots, but all the others should know what to look for in the garden—to know, for example, which plant was the first to flower this year and which of the plants frost will injure, and where you would look for the chrysalids. Even where there is no school garden the children might be encouraged to take an interest in the plants around them by making a record of their observations, placing against each entry the name of the child who made the observation. Such a calendar would be of great interest, especially after a year or two, when comparison with the lists of previous years could be made.

For the sake of the teacher himself, no less than for the scholar, a plan of the garden should be drawn up at the beginning of the session, and each vegetable to be grown assigned a place upon it, and then it will be an easy matter to order all the seeds that will be required. In deciding what vegetables are to be grown care should be taken to include a good number of kinds, those of which small quantities are required can usually be best grown in borders or beds, and not on the pupils' plots, which should contain a representative collection of the vegetables suitable for cultivation in the home garden. Perennial vegetables and herbs can be planted in borders set apart for them, and the plan should not be considered complete without provision being made for a border of herbaceous plants to demonstrate how effective and useful such a border can be.

Something should also be done in the cultivation of fruit trees and bushes; it is not always possible to include a typical collection at the beginning, but a great deal can be learnt from a small number of such plants. Half-a-dozen planted each year for a few years would form a useful collection fully as soon as boys will have been educated to let unripe produce alone, and proceeding in this way the annual cost would be very small. The possibilities of doing useful work in connection with the school garden are almost unlimited. Apart from growing vegetables and fruit there is the need for beautifying the outside of the school by means of flowering plants and shrubs; a branch of gardening that every school could take up to-morrow if they would; the arrangement of a school “arbour-day” and the raising of plants co-operatively for distribution, all of which would produce results of value out of all proportion to the trouble and expense of starting them.

MR. BURCH, of the Rose Nurseries, Peterborough, in a recent lecture before the Beckenham Horticultural Society, recommended a wash made by dissolving half a bar of Lifebuoy soap in three gallons of water as a specific against mildew in roses.

# The Month's Work.

## The Fruit Garden.

By GEORGE DOOLAN, Instructor in Fruit Culture, Department of Agriculture.

**A** RETROSPECT.—The year just past has been a most disappointing one to fruit growers, and, with the exception of a few whose plantations were specially favoured, the

returns of crops have been of an unsatisfactory nature. The atmospheric conditions prevailing last spring, and indeed throughout the year, were not at all favourable to the fruit grower. Two facts were very noticeable—viz., the fruitfulness of young apple trees and the scarcity of Crabs. That



GEORGE DOOLAN.

young trees both on Paradise and Crab stocks should bear, whilst older ones were practically fruitless, is a question upon which many theories may be put forth. Many think that young trees, because of their smaller size, escape the harsh cutting winds which are so prevalent in the spring. Still large trees entirely fruitless were to be seen in the most sheltered situations. It was remarkable also that the Crab crop should be almost a total failure.

*Prospects for Fruit Growing.*—There is at the present time every indication that fruit growing is receiving a good deal of attention, and farmers and others possessing holdings are more and more inclined to plant. This is a healthy sign of the times, and one, too, that is likely to continue. The development of fruit growing is one of the most pleasing features of a country. Better fruit will be the result—fruit that will compete with and displace the foreign article, which is so much in evidence at the present time. It is nonsense to say, as many are inclined to say, that the markets will be “flooded” as a result of all this fruit growing. You cannot flood the markets with the right sorts. There is, and always will be, a market for well-grown fruit in season. In towns and

great cities the consumption of fruit is yearly increasing. People are becoming more alive to the advantages of fruit as an adjunct to the dietary; hence the demand.

It will be some time—perhaps eight or ten years—before the wisdom of the present planting will be fully realised. However, long before that time fine fruit will be produced, especially if the trees have been attended to. With the best and most suitable varieties grown, and where attention to pruning, spraying, &c., is carried out, there should be fruit of first class quality. But the work must be well done, and there is a lot in doing a thing well. “Doing things well and in good time,” says Austin, “is the secret of success in cultivation.”

Admirable directions on the planting and treatment of young trees are given in the November and December issues of *IRISH GARDENING*. It cannot be too strongly impressed upon all who contemplate the growing of fruit trees that attention to detail when the trees are young is necessary if the best results are to be obtained. Another means whereby the quality of fruit may be improved and the interest in fruit culture maintained is by holding exhibits at various centres through the country. Competition at such shows do a lot of good in promoting interest and enthusiasm—two very desirable factors to successful fruit growing.

**OLD TREES.**—Some good old varieties of apples and pears are still to be met with in many districts, trees with which the owners are loth to part. I know a case where such a tree produced twenty large bags of fruit. The fruit as a rule is small; in such cases it is the quantity that pays. Much may be done, however, to improve some of these good old sorts by thinning out the branches where they are too close, by clearing the tree of moss and lichen, and by top-dressing the surface with manure. In thinning the branches it is advisable not to cut too severely, because such trees may not have been pruned for years, therefore the tree is liable to get a check if the knife or saw be used too much. It is better to give a gradual pruning for a few years. All long, straggling branches should be cut out of the centre, also those shoots which cross each other. The great point is to have the centre open and the branches sufficiently apart to allow air and sunlight to freely penetrate. It is then quite obvious that the fruit will be improved as a result of such treatment. When the growths are dense and crowded a great deal of the crop is sure to be poor, because the wood on which the fruit is borne is not properly matured. If the trees are badly infested with lichen and moss, freshly slacked lime is a simple remedy to apply. It should be dusted on to every part of the tree in very calm weather, preferably in the morning when the moss will be damp and able to hold the lime. In two years the worst infested tree may be made quite clean if hot lime is used. The following winter a second application should be applied. The lime which falls to the ground will not be wasted, but will be of great benefit to the roots. The caustic solution, as recommended in the December issue of *IRISH GARDENING* (page 223), may also be used with good results. Before top-dressing old trees (if in an orchard) have the grass surface removed, and apply any time during spring a good mulch of well-rotted farm-yard manure. It pays to put the mulch six or

more feet from the stem of the tree, as the roots of such trees have spread a great deal. Liquid manure, where obtainable, is also of great service to old trees, making them more vigorous, and improving the size and the quality of the fruit.

## The Flower Garden.

By J. G. TONER, Horticultural Instructor, County Monaghan.

Spake full well in language quaint and olden,  
One who dwelleth by the castle Rhine,  
When he called the flowers, so blue and golden,  
Stars, that in earth's firmament do shine.

PERHAPS at no season are flowers more valued than at present, when the dark days of dismal winter hold the sway. Where even a little care has been given to flower culture, the eyes are gladdened and the heart cheered by the sight.

Chief amongst these are the late flowering chrysanthemums, and few plants indeed afford a better return. Where only a limited number can be grown, a selection of varieties should be made that would be likely to give a succession of bloom during the season. Now, and during next month would be a suitable time for taking cuttings, which should be dibbled in firmly in sandy compost either in pots or boxes, selecting the best when potting on later. Primulas will now be making a good show, it will pay to be sparing with water and the season of flowering will be much prolonged, and the appearance of the plants improved if the seed pods are picked off; *P. stellata* and *P. obconica* are great favourites, probably on account of the length of the flower spikes; the latter, too, blooms nearly all the year round.

Early cinerarias should now be in evidence, and may be lightly fed until part of the flowers open; plenty of air should be afforded to later batches in pits or cool houses. An unusual degree of brightness will be afforded if Zonal Pelargoniums are grown; they require a rather dry atmosphere and a temperature of about 55 degrees. Cuttings for summer display may be put in now, and old plants may be repotted and grown on, the youngsters however are better value.

Hyacinths, Tulips and Narcissus, if potted at the proper period, can easily be flowered now. They are without exception to be had cheaply, and they respond immediately to a little heat. They should occupy a light and airy position, otherwise flowers and foliage will be weak. No attempt should be made to force them until the pots have been well filled with roots. They may with advantage be shaded for a while after being removed from the plunge.

There is not a great deal to be done in the outdoor garden just now, but preparations should be made for overhauling herbaceous borders, room made for new occupants, or for division or transplanting of old ones. If the necessary mulching has not been put on, it should be no longer deferred. Where, as is nearly always the case, there are numbers of bulbs established in these borders, care must be taken that they are not damaged when using forks or spades. To guard against this danger they should be labelled. If this is objectionable, pegs may be put down to mark them, or, better still, defer the work if possible until they have become visible.

## The Vegetable Garden.

By WILLIAM TYNDALL, Instructor in Horticulture, Co. Kildare.

CONSIDERING the very wet time we have had I think it not out of place to remind all who have allowed digging, trenching, and other garden work to get into arrears to push it forward as quickly as the weather will permit, as from this month onward each week

will bring as much work as can be efficiently performed.

Seed catalogues have arrived, and the seed order must receive due and early attention, for my advice to kitchen gardeners is to clear out most of the old seeds in stock, with the exception of cucumber, melon and vegetable marrow. I admit old seed may germinate well enough, but very seldom does old seed produce as good a plant as new, and it is better not to run the risk of failure. In the present issue of IRISH GARDENING a Calendar is published in which the names of some of the most useful varieties of the several kinds of vegetables are given, and I would advise readers to go carefully through this list before sending the seed order away. Bear in mind that some varieties of vegetables do well in one county and are very inferior in another county, while to owners of large or small gardens, I would ask them to let the gardener select his own seeds, as though the collections put up by seedmen are very good value, yet to my mind this is a very unsatisfactory way of buying seeds, as often one has to take something that is not required and too little of the vegetables wanted.

Never spread manure on the plots or put in small heaps till immediately before you are ready to dig it into the soil. Yet this is an every-day occurrence; but the practice is bad, as much of the nitrogen, &c., of the manure is carried away by air, &c. Leaves should be collected if this has not already been done—for mixing with manure for hot beds and to put in large heaps to decay into vegetable mould.

SEEDS, &c. Many kinds of seeds will require to be sown in boxes, in heat, in January. Onions, leeks, tomato, cucumber, cauliflower, lettuce, and early peas the last-named in cool houses or frames; while radishes, carrots, and potatoes should now be sown in frames on well-prepared hot beds, covering the glass each night with mats. Useful sized boxes for raising onions, leeks, tomato, lettuce, and cauliflower plants would be two feet long, fifteen inches wide, and four or five inches deep; if the boards in the bottom are close, bore in them four or six holes  $1\frac{1}{4}$  inch diameter; put drainage, such as broken crocks or bricks, in the bottom of the box, and cover with leaves or moss, fill with soil composed of loam two parts, one part leaf mould, one part well-rotted stable manure, as from a spent mushroom bed, and enough sand to keep the whole porous. After mixing, the compost should be put through a quarter-inch riddle. Sow the seed thinly, and press firmly down with a smooth piece of board, cover lightly with fine soil, and give a good watering. I know that many gardeners who require very large onions and leeks sow the seeds in small pots, but I have found the boxes to answer quite as well, and they are much more convenient, occupying less room, so that many more plants can be grown. For the above kinds of seeds give a temperature of about 60 degrees after sowing, and when the seeds are up give air on all favourable occasions when weather is mild.

CUCUMBERS should be sown in pots and plunged in bottom heat of 70 or 80 degrees, and if the soil, that given for the other seeds will do well, is moist, little will be required till the plants grow up. Great care is necessary early in the year to avoid giving the plants a chill by exposing them to a draught or applying cold water to roots or leaves.

PEAS can be sown in long, narrow boxes, giving fair



## Calendar of Cultural Operations.—Vegetables.

Name of Vegetable	When to Sow Seed	When to Plant Out.	Distance Apart	Ready for Table	Names of good Varieties
Beet	April and May	...	1½ feet lines, 8 in. plants	Aug. to May	Doll's Crimson and Sutton's Blood Red for "Main Crop" and Globe Beet for "early use."
Borecole or Kale	End of April	When ready	2 feet × 1½ feet	Feb. and Mar.	Tall German Borecole and Asparagus Kale
Broccoli	During April	When ready	2 feet × 2 feet	Nov. to June	Self-protecting, Winter Mammoth, Superb Early White (Sutton's), Mont Blanc (Drummond's), Lenington and Model, in order of cutting
Brussel Sprouts	March	When ready	2 feet × 2½ feet	Nov. to April	Multiple, Wroton, and Exhibition Sprouts
Carrot	During April	Thin when ready	2 feet × 8 in.	Aug. to June	Early Gem, St. Valary and New Red Intermediate
Cauliflower, Early	On hot-bed, early March	Middle of April	2 feet × 2 feet	July and Aug.	Early Snowball and Dwarf Erfurt
" Main Crop	April	When ready	2 feet × 2½ feet	Aug. to Nov.	Magnum Bonum, Early Giant, and Vetch's Autumn Giant
Cabbage, Spring	Early July	End of September	2 feet × 1½ feet	April and May	Excelsior (Dickson's), Allam's (Early, Flower Spring and Early Offenhaim)
" Summer	April and May	When ready	2 feet × 1½ feet	June to Dec.	Nonpareil, Main Crop (Sutton's), Reliance and Main's No. 1
Celery, Early	Hot-bed, end of Feb.	May	3½ feet × 1 foot	Sept. to Nov.	Early Gem and Clayworth Prize Pink
" Main Crop	March	June	4 feet × 1 foot	Nov. to April	Solid White and Standardbearer
Leek	End of March	June & early July	1½ feet × 9 inches	Nov. to May	Lyons & Dobbie's International
Lettuce, Summer	March to end of July	Thin when ready	1½ feet × 9 inches	June to Nov.	Pearl, All Year Round, and Continuity
" Winter	Middle August	Oct. and March	1 foot × 9 inches	April and May	Hardy Gem, Hammersmith, and Winter Pearl
Onions, large Bulbs	Hot-bed, Feb.	End of April	1½ feet × 9 inches	Aug. to May	Ailsa Craig and Cranston's Excelsior
" Spring	March	Thin when ready	1 foot × 6 inches	Sept. to May	Redfordshire Champion and James' Keeping
" Tripoli	End of July and August	Oct. and Feb.	1 foot × 6 inches	May to Sept.	Giant Lemon Rocca and Red Flat Italian
" Pickling	End of April	Thin when ready	3 inches each way	Sept.	White Queen and Silver Skin
Parsnip	February and March	Thin when ready	2 feet × 1 foot	Oct. to May	Student and Tender and True
Potato, Early	Feb., & boxed seed Mar.	...	2 feet × 1½ feet	End of June	Ninetyfold and British Queen
Savoy	March and April	June	2 feet × 1½ feet	Aug. to June	Up-to-Date, Evergood and Duchess Cornwall
Beans, Scarlet	First week May	...	2 feet × 2 feet	Nov. to Feb.	Drumhead and Model
" Broad	February to May	...	Single lines, seed 1 foot apart	Aug. to Nov.	Best of All and No Plus Ultra
" French	End of April to end of June	...	Double lines, 9 inches apart	July to Sept.	Exhibition Long Pod for early, and Taylor's Broad Windsor for late use
Pests, Early	February	...	Double lines, 9 inches apart	July to Oct.	Canadian Wonder and climbing Tender and True
" Mid-Season	March to May	...	Sow thinly in shallow drills	June and July	Multiple, Gradus, and Bountiful
" Late	May	...	Sow thinly in shallow drills	July to Sept.	Alderman, Eureka, Senator and Daisy a Dwarf Pea
Turnips, Summer	March to June	...	1½ feet × 6 inches	Sept. and Oct.	Gladstone and Autocrat
Turnips, Winter	July and August	...	1½ feet × 6 inches	June to Dec.	Early Milan and Snowball
Spinach	March to August	...	1½ feet × 6 inches	Dec. to April	Orange Jelly and Blackstone
Herbs	April	...	1½ feet × 1 foot	All year round	Victoria Round; quite hardy Parsley, Mint, Thyme, and Sage are the most useful

drainage, and filled with two parts loam and one part each leaf mould, and old mushroom bed manure. Put the boxes in a cool house or frame, and do not weaken them by placing in much heat.

**FRENCH BEANS.**—These will now force quite readily, and the growth will be much better than those sown in December. Seven-inch pots are quite large enough till the days lengthen. For filling the pots use good loam, with some leaf-mould and old mushroom bed manure, and make the soil firm. Little water will be required till the plants are up, but a temperature of at least 55 degrees must be maintained if the plants are to grow satisfactorily. Osborne's Forcing, Lyon House, or Ne Plus Ultra are good varieties for early cropping. If the pots, after the seeds are sown, can be placed on a hot bed, or over hot water pipes, the seeds will grow more quickly.

**POTATOES, CARROTS, and RADISHES.**—In preparing hot beds for growing potatoes, carrots, radishes, &c., leaves of oak and beech are most useful. These should have been gathered, and can now be mixed with manure and turned a couple of times, at intervals of a week, before finally making the bed, which should be at least three feet deep when made firm, and extending a foot all round outside the frame when put on. Put over the manure six or nine inches of nice, friable soil, in which there is a good deal of leaf-mould or old mushroom bed manure. Sow the carrots thinly in drills six inches apart, while the radishes can be sown midway between the lines of potatoes, though if the potatoes are properly sprouted I would prefer to sow the radishes by themselves, as the potatoes might shade them before they were fit for pulling. Good varieties of carrots are French Horn and Early Gem; radishes, Wood's Frame; and potatoes, Early Puritan and Sharpe's Victor, the former, though inferior in quality to Sharp's Victor, gives at least twice the crop.

## Notes and Abstracts.

By G. O. SHERRARD.

**AMERICAN GOOSEBERRY MILDEW IN WORCESTERSHIRE.** By K. G. Furley (*The Journal of the Board of Agriculture*, England, Nov., 1907).—An account is given of the spread of this disease in Worcestershire and the methods adopted by the Worcestershire Co. Council to check its ravages. Spraying was commenced on the 26th March last, potassium sulphide being used at the rate of one ounce to three gallons of water. The sprayings were continued at intervals of a fortnight up to the 8th July, an increasing strength of spraying material being used. Thus on the 15th May the strength was brought up to one ounce of potassium sulphide to one gallon of water. At the end of May sodium sulphide was substituted for potassium sulphide on account of the greater expense of the latter. On the 7th June the sodium sulphide was applied at the rate of one and a half ounces to one gallon of water, and on one plantation twice this strength was used. The weather during the whole of the spraying period was showery, and no damage was done to the leaves, flowers, or berries by the spraying material. Spraying was discontinued after the 8th July, but in badly infected plantations all shoots showing traces of disease were pruned off and burnt. The results of spraying, although good in some cases, are described as not being altogether satisfactory on the whole, and it is recommended by the author of the article that all affected bushes should be destroyed.

**TOMATO DISEASES** (*Bulletin of the Massachusetts Agricultural Experiment Station*).—An investigation into the cause of the Blossom-End Rot of Tomatoes is described. The disease is found to be due to a fungus

(*Fusarium*) which enters the young fruit through the style or epidermis. A rot in tomatoes due to bacteria is also described.

**BLACK SCAB OR "WARTY DISEASE" OF POTATOES.** By E. S. Salmon (*Gardeners' Chronicle*, December 7th, 1907).—An illustrated article describing this disease and its distribution in Great Britain is given. The fungus appears to have gained a foothold in five counties in England, in one in Wales, and in one in Scotland. The disease is a very destructive one where it has become established. An account of it is given in Leaflet No. 105 of the Board of Agriculture, Whitehall, London.

**A NEW MALADY OF NARCISSUS.** By F. Denis (*Gardeners' Chronicle*, December 14th, 1907).—An account is given of a beetle (*Malacosoma lusitanicum*) which has caused serious loss to bulb growers in the South of France. The larvae of this insect are small, white grubs about  $\frac{3}{4}$  inch long and  $\frac{1}{2}$  inch thick. They attack the bulbs of various species of cultivated Narcissi during the spring, doing considerable damage. Carbon disulphide is suggested as a remedy.

**THE POTATO LEAF CURE.** By W. P. Wright (*The Journal of the Board of Agriculture*, England, Nov., 1907).—This disease is described as having done considerable damage to the potato crops in the South of England. The disease is due to the presence of a fungus (*Macrosporium solani*). Worn out seed stocks and drought are said to especially predispose tubers to its attack. The preventive measures advised are—(a) seed selection and preparation, (b) change of seed stock, (c) adequate moisture, (d) experiments with immature seed, (e) destruction by fire of any diseased sets, leaves or haulm, (f) dressing the ground with kainit. An account of the disease is given in Leaflet No. 164 of the Board of Agriculture.

**THE APPLE SAW FLY** (*The Journal of the Board of Agriculture*, Nov., 1907).—The larva of this insect is mentioned as being in some years very destructive to young apples. It feeds on the developing fruit during the months of June and July, making tunnels through the apples and causing them to fall. All fallen apples should be at once destroyed, as they usually contain the larvæ. Since the insects enter the apples in the same way and at about the same time as the larvæ of the codlin moth, a spraying with arsenate of lead just after the blossoms fall would probably be beneficial. A full description and life-history of the insect is given in Miss Ormerod's "Handbook of Orchard and Bush Fruit Insects."

**A GARDEN OF PERFUME.**—A writer in the *Gardeners' Chronicle* throws out an excellent suggestion for the making of a "garden within a garden"—a definite marked off garden of sweet scents stocked for the most part with old-fashioned flowers that usually have associations entirely their own. It is to be a strictly formal garden, square, with a central grass lawn and a border all round for flowers, with or without a separating path, and the whole enclosed by a hedge of lavender, rosemary or southern wood. As to the flowers, there is a wide choice—pinks, violets, wallflowers, lilies, sweet-scented hyacinths, Poet's narcissus, lavender, Jasmine, Daphne and mock orange. Of annuals, there are stocks, sweet Sultan, tobacco, mignonette, and many more. While for summer display have we not heliotrope, scented verbenas, oak leaf pelargonium and brugmansias. One can easily fancy the quiet delight of it all, with its refreshing fragrance in the cool of a summer's day. Now is the time to plan it all out and to make ready for planting. It is a capital idea.

## Early Forced Potatoes.

NEW POTATOES are much appreciated by almost everyone, rich and poor alike, and various are the methods adopted to get an early dish or two, even when little convenience for such work exists. The preparation of the seed and selection of suitable varieties are very important. I have found no better varieties for frame and pot culture than Sharpe's Victor and White Puritan, and though the last named lacks the quality of Victor, it will give at least double the crop. Both are dwarf-topped varieties. When digging these varieties in open ground for early use I always select enough medium sized seed for forcing, and put them in boxes to green, afterwards keeping them in a cool place. When the sprouts start they will break away strongly, and when started leave only one, or at most two, sprouts on each seed. For very early growing I find 10 or 12 inch pots the best, and for these, tubers can be potted early in January if the seed has been placed in a warm greenhouse on a shelf, close to the glass, early in December. The pots will require fair drainage, and they should be more than half filled with fine, light soil—viz., one part each loam, leaf-mould, and old mushroom bed manure or well-turned stable manure. This should easily cover the seed, two tubers being placed in each pot. When the growths have got over the top of the pots, earth up with soil similar to that used in potting to within an inch or two of the rims of the pots. Always have the soil made warm before using. Place the pots in a warm greenhouse, and near the glass, so that the stalks can get plenty of light, and grow strong and sturdy. Do not give too much heat. Water carefully, and when the young tubers are forming, weak liquid manure occasionally is of great assistance. For supplies in April and May it is best to grow them in frames placed on hotbeds, and the beds should be made up of two parts leaves and one part fresh stable manure. Make the bed firm, and about 4 feet deep, and at least a foot larger all around than the frame to be placed on it. Of course much depends on how the hotbed is made, the lasting heat and the success of the crop of potatoes grown. Many gardeners turn the heap of manure and leaves at least a couple of times to get rid of violent heat before making up the bed, while others give this matter no consideration. With good fresh leaves, two parts, and one part only, fresh stable manure can be used, as the leaves will absorb and not let the bed get into a violent heat. Place about 12 inches of soil, as recommended for pot culture, or light soil from cucumber bed in the frame when it is seen that the bed will not get too hot, and let it be at least 15 inches from the glass. Sow the potatoes, which should have been well sprouted, in lines 15 inches apart and 1 foot from seed to seed, covering them with about 3 or 4 inches of soil. Top-dress when the stalks are 6 inches high, and keep the stalks free from injury from frost or sun throughout the growing season, and for these reasons ventilation requires constant care, and cold draughts must be guarded against; therefore, always when admitting air, tilt the lights on the side opposite the wind. Plenty of water will be required as growth increases, but on beds of fermenting material giving off heat much less water is required than if heated by hot water pipes. By covering the glass at night a more even heat is maintained without having to add fresh manure and leaves around the bed and frame. Radishes can be grown between the lines of potatoes.

W. T.

ACCORDING to the returns for the month of November last the imports of apples to the United Kingdom amounted to 790,897 cwt., having a value of £469,394, which is a considerable increase on the amount imported for the same month last year.

## Catalogues.

MACKEY'S GARDEN MANUAL, 1908, is a neat, conveniently arranged and nicely illustrated list of vegetable and flower seeds for the garden, extending to 76 pages. It contains a good deal of information on the culture of the different classes of plants. In a foreword to the catalogue the compilers rightly draw attention to the importance of securing seeds of the best strains and of high germinating power.

GARDEN SEEDS, 1908. Wm. Fell & Co. (Hexham), Ltd. — A catalogue of vegetable and flower seeds, nicely illustrated with numbers of half-tone blocks printed on plate paper. In the list of flower seeds the plants are arranged alphabetically, and tabulated under colour, height, time of blooming, duration, and remarks.

S. M'GREY & SON : CELEBRATED SEEDS.—The catalogue opens with detailed lists of complete collections of vegetable seeds for one year's supply, and follows with descriptive lists of all the important vegetables, including potatoes. In the flower section there is a beautiful full-page illustration of "Ethel M'Gredy"—a new, pure white aster raised by this firm. Gladioli, begonias, and sweet peas appear to be a speciality, and exhibitors will be interested in the list of the N. S. P. S. given in page B of inset. The Messrs. M'Gredy is one of the three northern firms widely known as raisers of new roses, and references to those offered by the Portadown house are given on page 67.

WEBB'S SPRING CATALOGUE FOR 1908 is devoted to descriptive lists of vegetables and flower seeds. It runs to 154 pages, and is illustrated on every page with clearly-printed photographic reproductions of typical specimens of garden plants. Cultural directions are given throughout.

SEED POTATOES (Season 1908), issued by Isaac Bell, Banbridge.—Mr. Bell draws special attention to the new potato, "Irish Queen," which is the name now given to his "Seedling No. 7," introduced last year. The following are the chief characteristics claimed for it:—"It is of uniform shape, round, with deep eyes like Champion; haulm very strong, and ripe a little before Champion; in wet, cold land it thrives better than any other kind that I have grown. Furthermore, it does best in wide drills with fairly close planting, requires little manure, and grows very rapidly."

POTATOES offered for sale by WESLEY FORBES (Season 1908).—This is a clearly illustrated pamphlet dealing with potatoes. Special attention is drawn to the new variety, "Irish Queen." Mr. Forbes has had it tested in different parts of the country, and, from the reports received, has summarised its characters as follows:—"A fine crop; round in shape; superlative quality and flavour when cooked; no disease; a good blight resister and late grower; haulm erect, and covers ground well; it thrives in every variety of soil and district."

BY THE SHANNON.

ROSE cloud and purple cloud,  
Purple cloud and rose,  
Kerry shore and Clare shore,  
Where the river flows;  
Trembling in purple twilight,  
Paling as the daylight goes.  
Golden burst of rain-cloud,  
Low rocks and golden sky,  
Flats of shining seaweed,  
And a wild bird's cry;  
Slowly, as the river widens,  
One black sail goes drifting by.

—A. V. C. in "The Shanachie."

## Answers to Correspondents.

**FOOD VALUE OF POTATOES** ("Small Farmer").—You do not say if you have in mind the value of potatoes as food for man or for farm stock. The value of a food is usually determined by the amount of digestible heat-giving and flesh-forming constituents it contains. The digestibility of any particular food depends partly on the kind of animal using it. Potatoes contain nearly three times as much heat-giving and nearly twice as much flesh-forming substances as turnips (the other food material you mention). It has been found that while 60 lbs. of potatoes represent an increase of 1 lb. to the live weight, it takes 100 lbs. of Swedes to give like results.

**THE FLAME-FLOWER** ("A Mere Amateur").—(1) Why not plant the Flame-flower (*Kniphofia*)? It is an excellent subject for a suburban garden, giving a brilliant display of colour. Once you plant them in well-trenched and richly-manured soil they will require very little attention, excepting to stir occasionally (not dig) the surface of the soil, and if the soil gets exhausted of food to mulch with well-rotted manure. Autumn or spring is the time to plant. (2) You cannot do better than plant Weigelas, selecting *W. rosea*, *W. floral*, or *W. alba*, or all three. They produce flowers most abundantly, and do not object to living near towns. Keep soil well drained and aerated. (3) Either of the firms you mention may be relied upon, but read announcement of the second named in our advertisement pages.

**HERBACEOUS BORDER** ("Lady Reader").—A clump of Scabious would suit your purpose admirably. They are not particular as to soil so long as it is deeply dug and enriched with a fair quantity of well-rotted dung. It will add to the healthy development of the root system if you keep the soil open by the addition of either leaf-mould or gritty road scrapings (or both). You may raise either from seeds or division of root. One of the most effective varieties is Caucasian Scabious (*Scabiosa caucasica*). Flowers grey-blue, extending from June to October. They are most effective in the border, and really grand for vases.

## Correspondence.

### CRAB AND PARADISE STOCKS.

SIR,—With reference to Mr. Cowan's letter under the above heading in last month's issue, arising out of an extract from "Month's Work in the Fruit Grounds for November," Mr. Cowan does not give sufficient particulars to warrant me in advising him as to the best systems to adopt. However, for the benefit of other readers, I would like to explain the reasons for the popularity of the different systems and stocks.

The chief reason for the popularity of the Crab stock is due to its hardness, adaptability for cold situations, and endurance of negligent treatment. This stock will thrive and produce heavier crops and better quality of some of the best commercial apples under adverse circumstances than could be obtained from trees on the Paradise stock. It is, nevertheless, a fact that we have—under any circumstances—longer to wait on remunerative returns from trees on the Crab stock. Under suitable management at root and branch, trees on the Crab stock are destined to attain to a larger size, and when they fully occupy the space allotted to them, they will in most cases—provided their cultural requirements are attended to—have given by the twelfth or fourteenth year after planting as remunerative returns per acre as bush trees on the Paradise stock. I have under observation two acres of half-standard Bramley's seedling on the Crab stock, planted sixteen years ago. The spreading and drooping habit of those trees indicates that they have cropped well in the past, and this year they have

produced about 7 tons of first-class fruit per statute acre. On better land in another orchard in the same district there is about an acre of Bramley on the Paradise stock, planted twelve years ago, which show by their habit—although more attention has been bestowed on them, but the occasional negligent treatment was not suitable for the stock—that they have never cropped well, and this year did not yield one ton per acre. It is a well-known fact that for commercial purposes such free-cropping varieties as Lane's Prince Albert give best results—even when restricted to bush or pyramid form—when grown on the Crab stock. The latter stock is, however, sometimes brought into disrepute through an inferior type of the Free stock being substituted in its stead.

The Paradise stock is *unquestionably* the best for yielding a quick return from trees grown on the dwarfing system and under more intensive cultivation than would be desirable for developing thrifty young trees on the Crab stock. Being more fibrous rooted than the latter, and with a greater disposition to root near the surface, it is, therefore, more under the influence of nourishment and the warmth of the atmosphere, which places this stock—so long as it is allowed suitable cultivation—in the foremost rank for the production of the highest class of fruit. If from frost or other causes trees on the Paradise stock should miss cropping and become too luxuriant, they are easier controlled by root pruning than those on the Crab. Varieties like Blenheim, Bramley, and Gascoigne's Scarlet, which are shy croppers as young trees on the Crab stock, are, under suitable management, quite prolific at an early age on the Paradise.

The principal reasons for the popularity of planting permanent trees on the Crab and temporary trees on the Paradise stocks are—(1) A smaller area will profitably accommodate a greater number of trees for the first few years, and a quicker return is obtained for the cost of preparing the land. (2) If taken in time, when the permanent trees are coming into profit, the temporary ones can be transferred to suitably prepared land without receiving more check than might ultimately benefit them. (3) If the space between the trees is judiciously utilised for bush fruits or strawberries, such crops will amply repay the extra labour involved. (4) The average yield per acre of good commercial fruit from varieties best suited to the Crab stock will, when in full bearing, be equal to or exceed that grown on the Paradise. It is altogether a matter of circumstances as to which is the best stock or system to adopt.

The Paradise stock has been adopted by one of the leading market-gardeners in Cornwall in laying down market-garden land to fruit. The trees are planted 12 feet apart each way—some sections with bush fruits and strawberries between the trees for the first few years, and in others bush fruits or strawberries only. There were about thirty acres on this holding planted in this way when I saw it nearly five years ago. The land was deeply tilled and scrupulously clean. Manual labour in Cornwall costs nearly double of what it does under similar circumstances in Ireland. Nevertheless, the Cornishmen occasionally find it very profitable to send strawberries to the Dublin markets, with freights from Penzance and tolls amounting to 6s. 6d. per cwt.

In conclusion, I should here remind those concerned in the development of fruit culture in Ireland that it is not so much the Crab stock that is responsible for the moss-laden and barren condition of so many farmers' orchards, as it is the apathy and perverse indifference of the owners to learn or adopt more progressive methods, which leads to the production of the worthless, sky-scraper form of tree that is wasting so much land. Remove the prevailing cause (the dirt) from root and branch, and under rational treatment the general condition of the trees, and both quantity and quality of the fruit, will quickly improve.

PETER BROCK.

Orchard Terrace, Enniskillen.

# A WARNING.

---

Mr. Munro Ferguson, M.P., giving evidence before the Irish Forestry Committee stated:—

"For the growth of many classes of Timber the climate of IRELAND is the BEST in the WORLD. The growth of young Larch in Ireland is so LUXURIANT that the plants are better able to withstand the disease . . . . IRISH grown Larch is better than ANY that can be imported . . . . We would be justified in prohibiting the importation of Larch plants from GREAT BRITAIN and the Continent, and I certainly would stop imports."

In a recent issue of "Irish Gardening" this subject of Larch disease is further commented upon in a strong manner by Mr. Archibald E. Moeran, who states:—

"In EVERY case of Larch disease I met with in Ireland the Plants came from England or Scotland."

If the Forester wishes to guard against this destructive and costly disease, he is warned to plant only Irish grown trees, raised from Native seed, of which there are plenty to be had in our Irish Nurseries.

Should planters experience any difficulty in procuring trees as advised by these experts, they may be glad to learn that in the Nurseries of Messrs. Wm. Power & Co., Waterford, we recently inspected a large and magnificent stock of native Larch of all sizes. We are sure Messrs. Power would be most happy to give quotations for any requirements.

Webster's Foresters' Diary, dealing with Larch disease, says:—

"From Ireland very few complaints have reached us. Irish Larch is almost immune from attack."

**When Planting** —

**FOREST, FRUIT,**

**OR**

**ORNAMENTAL TREES,**

**THORN QUICKS,**

**AND**

**HEDGING PLANTS,**

**WRITE . . .**

**WM. POWER & Co.,**

**Nurserymen,**

**WATERFORD.**

---

**ILLUSTRATED NURSERY CATALOGUE POST FREE.**

---

**over 600,000 Forest Trees** were exported from our  
Nurseries last Season to England, Scotland, and Wales.

FEB., 1908.

TWOPENCE.

# Irish Gardening

## Contents

	PAGE		PAGE
The Ash . . . . .	17	The Clematis . . . . .	25
Culture of Broad Beans . . . . .	19	Roses . . . . .	26
Sweet Peas . . . . .	20	The School Garden . . . . .	27
New Books . . . . .	20	Current Topics . . . . .	28
Notes and Abstracts . . . . .	22	Month's Work . . . . .	29
Evil of Over-crowding in Gardens . . . . .	23	Correspondence . . . . .	32
Larch Disease in Ireland . . . . .	24	Answers to Correspondents . . . . .	32

### DUBLIN

PRINTED AND PUBLISHED BY JOHN FALCONER, 55 UPPER SACKVILLE STREET.  
OBTAINABLE AT RAILWAY BOOKSTALLS AND FROM NEWSAGENTS THROUGHOUT IRELAND.  
WHOLESALE AGENTS: MESSRS. EASON & SON, DUBLIN & BELFAST:  
GEORGE VICKERS, ANGEL COURT, STRAND, LONDON.





## WINDOW GLASS.

Polished Plate for Shop Windows.  
Ornamental Glass of all Descriptions.  
Horticultural Glass at Lowest Rates.

## DEATH TO THE WEEDS.

### HOYTE'S WEED KILLER.

*Strongly Recommended for the Destruction of Weeds, &c.*

Price, 2s. per gallon; 5 gallons, 1s. 6d. per gallon;  
10 gallons, 1s. 3d. per gallon; Original 40-gallon casks,  
1s. per gallon.

**HOYTE & SON**, The City of Dublin Drug Hall,  
17 LOWER SACKVILLE STREET, DUBLIN.

## IRISH QUEEN.

FELLOW-COUNTRYMEN,—If I could get you to know  
the merits of this New Potato I don't believe my stock  
would last 24 hours.

**IRISH QUEEN** alone gives universal satisfaction  
in Ireland. It does well on all soils, is a  
fine cropper and disease-resister, round in shape,  
with practically no chats, whilst as an Eating Potato  
it excels everything. Unequalled since 1847.

Considering its merits and the limited Stock, I am  
offering it at a nominal price for early delivery. Catalogues  
free.

**ISAAC BELL**, Parkmount, BANBRIDGE.

All Original Illustration Blocks in  
"Irish Gardening" are executed by

... THE ...

## Irish Photo-Engraving Co.



Samples and Prices  
for every kind of  
Illustrative Work  
upon application.

Oriel House, Westland Row, DUBLIN.

## NOTICE

### READERS

wishing to bind Vol. II. may re-  
ceive copy of Title-page and Index  
by applying to the Publishers.

"Has stood the test of a quarter of a  
century."

## THOMSON'S Vine, Plant, and Vegetable MANURE.

Only Medal,  
Edinburgh, 1886.



Gold Medal,  
Edinburgh, 1891.

The result of long Practical Experience. Unrivalled  
for all Purposes. This valuable Manure is  
yearly growing in public favour.

ALSO

### THOMSON'S SPECIAL CHRYSANTHEMUM MANURE.

Perfect Plant Foods.

SOLD BY ALL SEEDSMEN.

Price Lists and Testimonials on application to  
SOLE MAKERS—

**WM. THOMSON & SONS, LTD.**,  
Tweed Vineyard,  
CLOVENFORDS, GALASHIELS, N.B.

## "A True Plant Food."

GIVES IMMENSE INCREASE IN CORN, ROOT,  
GRASS, FLAX, AND GARDEN CROPS . . .

The ONLY form of NITROGEN that feeds the  
Crop immediately it is applied.

## NITRATE OF SODA

Can be bought of all Leading Dealers  
in Manures.

Pamphlets and information Free on application to  
**JOHN SIMPSON**, at the Irish Office of the

**Permanent Nitrate Committee**,  
15 Lower Sackville Street,  
DUBLIN.



# IRISH GARDENING



A Monthly Educational Journal devoted to  
the Advancement of Horticulture in Ireland



## The Ash.

By ARCHIBALD E. MOERAN.

**F**EW people will say that the ash is a particularly ornamental tree, and none, I think, will advocate its advantages where shelter is the object; yet, in its proper place, the ash possesses sterling qualities which command our whole-hearted respect, and, indeed, I think I may say, our affection.

As an ornamental tree it fails, because it is the last to come into leaf in spring; its sparse, pale-green foliage is at no time strikingly handsome, and the first autumn frost that serves to bring out all the red and brown and golden glories of the beech and maple and lime leaves the ash stripped and gaunt to remind us that the long winter is coming three weeks before there is any necessity at all for thinking about such unpleasant things. Of course a hoary old ash with great, grey, lichened trunk and wide gnarled arms is a striking feature in either park or roadside scenery, but more from the contrast it offers to its more graceful neighbours than from any great beauty of its own.

As a shelter tree it fails, because of this same sparse foliage in summer, and in winter its few branches, with short, blunt twigs, give the

minimum of protection from wind and cold. Furthermore, its roots spread very widely and near the surface, feeding from the same strata of soil as the field crops adjoining must depend

on. The reason we see so much ash grown in hedge-rows is that it is a tree of the most extraordinary powers of reproduction, both from seed and from stools, and some few out of the many youngsters find favour in the eyes of the hedge-cutter and are spared. This power of reproduction, far in excess of any other tree we have, is not the least of the good qualities possessed by the ash. All over Ireland, in old woods worn thin, on waste corners and scant hillsides, there are millions upon millions of ash seedlings springing up each year. Often the whole floor of a wood is covered with them as close as heather, but rabbits and cattle and deer graze them down, or worthless

scrub or trees as worthless overshadow them, and shut out the light that is the life of the ash, which ranks as one of the most light-demanding species of all forest trees. I presume it is because this volunteer crop is planted by the bountiful hand of Nature, free of charge, that



Twigs of Ash.

1. Foliage on summer shoot. 2. Flower cluster on shoot, late spring.  
3. Bunch of fruit or "keys" still hanging on twig.

owners of woods so commonly ignore it altogether. Not only is it at the mercy of four-footed marauders, but two-footed bandits raid it with impunity, cutting bundles of "skollops" or "a few kippens" to make hurdles or handles, and choosing all the straightest and best, and leaving only the rubbish.

Now, we ought all of us to be very proud of our home-grown ash. It is the only timber we produce which has held its lead in the face of the keenest foreign competition; not only as the best ash in the world, but as the best timber in the world for numberless useful and indispensable purposes, and it has done this purely on its merits.

The very best quality trees we can produce are those grown from natural seedlings such as

I have described. These trees will sell for 2s. per cubic foot standing, or close on £3 per ton for butt lengths, so it is worth while taking a great deal of trouble and making some outlay to produce them, but, as a matter of fact, very little trouble is required, and practically no outlay, when the conditions are favourable, as they are in hundreds of cases of which I



A. E. Moeran.

know. Of course to grow good ash the land must be suitable—that is, a fairly deep soil, with plenty of fresh moisture, but stagnant water is an abomination. More ash trees catch cold through getting "wet feet" than children. The best test of the land is to examine the ash already on it, and see if they are making what the Americans call a "thrifty" growth. Ash to be of good quality must be grown fast and be absolutely clean and straight-grained—a tree that will split from butt to top, if not felled with the greatest care, is the one for which the timber merchant will give most money.

Let the young trees struggle up in a jungle till quite fifteen feet high. As long as they have light over their head the crowding will only benefit them at this stage. Then a little easing out for the better trees by slashing over two or three round them, a little pruning back of too strong branches while yet they are small. This repeated a few years later, and the promise of a very valuable crop of trees is the result. There is more in its subsequent treatment than

space will allow me to deal with, but nothing that the ordinary man, without forestry training, cannot master and put in practice with the greatest ease.

I wonder have many people realised how the homely, unassuming ash is linked to much that is best and brightest and bravest both in our present every day life and in our history as a people! We take our first views of life seated in a mail cart or perambulator with ash shafts. The vast road traffic of the British Isles is carried by wheels made partly of ash in vehicles, in the building of which ash is largely used. Shafts and carriage poles, agricultural implements, the oars that slowly drag the heavy lifeboat out into the teeth of the gale—even the ribs of the Quilty fishermen's curragh—all are ash. Tool handles of every description, the pick, the shovel, the fork, the spade; where the best handle is wanted it is English or Irish ash. Think of the manual labour of a whole nation, of the strong hands that have won for England her foremost place, worn hard from gripping honest ash handles—the handles over which the miner, the mechanic, the navy, and the labourer have poured the sweat of a strenuous lifetime, and you will agree with me that the ash ought to be something more to us than just a rather uninteresting wayside tree. In games, too, it holds its own. Tennis racquets, hockey sticks, cricket stumps, are all of the best ash, and the hurleys of our national game are keenly sought for among ash, having a natural bend at the root.

Our working partnership with ash does not date from yesterday either. The pike and halbert-men of the middle ages mounted their weapons on ash shafts, and at Crecy and Poitiers it was from the deadly flight of ash arrows that the French army flinched before the chivalry of England, with their great ash lances laid in rest stormed down on them and over them.

We can imagine among Arthur's knights how closely the quality of the timber was examined when both life and honour depended on its strength—when—

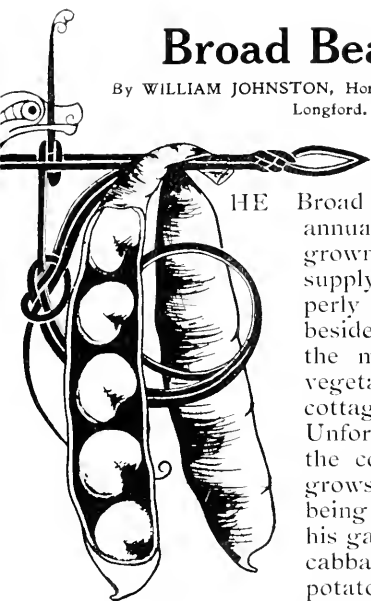
"All at fiery speed the two  
Shocked on the central bridge and either spear  
Bent but not break, and either knight at once  
Hurled as a stone from out a catapult  
Beyond his horse's crupper, and the bridge  
Fell as if dead."

Yes, we are sweeping away hedgerows and plantations and woods, and in whole districts there is hardly an ash tree left; but does not it seem, in a way, as if we owed something better than this to the ash after its ten centuries of service.

"If human life be cast among trees at all, the love borne to them is a sure test of its purity."—*Ruskin*.

# Broad Beans.

By WILLIAM JOHNSTON, Horticultural Instructor,  
Longford.



THE Broad Bean is an annual plant, is easily grown, yields a large supply of food if properly treated, and, besides, is one of the most nutritious vegetables for the cottager to grow. Unfortunately, I find, the cottager seldom grows this vegetable, being content to plant his garden with field cabbages and some potatoes; but those who grow it either

fail in its cultivation or else use inferior varieties which not only prove nearly fruitless, but whatever comes to perfection is of little food value. Another great mistake made by cottagers and even small farmers is to procure the seeds from some local merchant regardless of age, quality or even the variety they are purchasing. They sow these seeds, and when failure befalls them, instead of blaming themselves as to their own ignorance in purchasing bad seeds, they exclaim—"Beans are an unprofitable crop to grow?" This remark as to the purchase of seeds holds good for the other species of vegetables as well as to beans. I would strongly advise those people to purchase only fresh, new seeds of good varieties from a reliable firm; and if they would read the following remarks on the cultivation of broad beans and put them into practice they would reap a larger produce from the same ground, besides having beans of better table quality than what they had formerly grown.

**SOIL BEST SUITED.**—Broad beans require a strong, deep, well-drained, loamy soil, but they will grow in any ordinary garden soil which has been deeply cultivated. Soils of a shallow nature are unsuitable for this crop, as the beans send out long, tapering roots downwards to a good depth. Light, sandy soil can be improved by treading it firmly while dry before sowing the seed.

**MANURING.**—A liberal dressing of stable manure applied while trenching the ground will be of great benefit to heavy clay soils, but it is a mistake to make the soil too rich at the time of sowing the seed, as this tends to produce too luxuriant growth of stems and leaves to the detriment of pods. It is advisable to grow this crop on land that has been previously well manured.

**SOWING.**—A sowing of beans can be made in open weather in the beginning of February, as soon as the soil is in workable condition. Open drills or ruts about three inches deep and from two to three feet apart, according to the variety sown; plant the beans zig-zag in the drills about four inches asunder, and return the

soil removed so as to form a drill over the seed. Successive sowings can be made onwards at intervals till the middle of May. It is still a better plan to place the rows rather wider apart and to intercrop the spaces between them with lettuce, spinach, &c. In dry weather soak the seed for a day before planting, so as to hasten germination.

**AFTER TREATMENT.**—When the young bean plants are about three or four inches above the ground they should have a little earth drawn up to them on either side of the rows. This is of great advantage to those sown on the level ground, as it induces the plants to send out fresh roots. Hoe regularly between the rows to keep down weeds and so conserve the soil moisture for the the growing crop. Beans having a desire for plenty of moisture during their growth, a mulching of short dung, from two to three inches thick, extending about nine inches on each side of the rows, applied during hot weather in summer, will have a four-fold effect to the crop, namely—(a) by preventing evaporation it will conserve the moisture about the roots; (b) it will help to keep the temperature of the soil more equable; (c) each time water is applied the food material of the manure will be washed down to the roots; and (d) it tends to keep the plants in bearing longer, yielding heavier crops, and besides, better produce will be the result. When the plants show sufficient blossom for the production of a good crop, pinch out the tops. This checks the undue growth and throws the whole strength to the development of the pods. It not only tends to render the pods larger and better, but it also acts as a preventative against the attack of the *black aphid* by removing the portions of the plants on which the insects feed and ruin the crop. As the plants become unprofitable they should be rooted out and the ground planted with some other crop.

**VARIETIES.**—As the broad bean is divided into two classes—*Long-podded* and *Windsor*—I will particularise a few of the very best and most profitable varieties of both classes. *Giant Seville Long-pod.*—Earliest of the long-podded varieties, the pods being long and containing about six beans of the best quality. *Giant Wonder Bean.*—Large, long-podded variety, very productive and of fine flavour. *Mammoth Long-pod.*—A strong growing variety; pods long and broad, which are abundantly produced and contain from six to seven beans in a pod. *Mammoth Green Long-pod.*—Largest and most prolific green-seeded variety grown, the pods being of a rich, deep green; excellent in flavour. *Leviathan.*—A wonderfully robust-growing variety; an immense cropper, pods frequently reaching a length of 16 ins. under good cultivation, and flavour good. *Improved Broad Windsor.*—A great improvement on the old Windsor, pods being larger and broader; of a dark green colour, and are produced in great abundance; of excellent flavour. *Green Windsor.*—Large; sturdy in growth; yields a large supply of pods; flavour good.

## Note on the Preparation of Broad Beans for Table.

It may be useful to add a note on this subject. Broad beans if cooked and served properly furnish such a highly nutritious food that it is really a pity that they are not universally used by all people who have the means of growing them.

**BROAD BEANS BOILED.**—Shell the beans and put them on to boil in boiling water to which salt has been added in the proportion of a tablespoonful to every two quarts of water. Time required for boiling, about twenty minutes. Serve in a hot vegetable dish with parsley and butter sauce, or add a piece of butter about the size of a walnut for a quart of beans.

Boiled bacon or ham is a suitable accompaniment with broad beans.

## New Books.

**'SWEET PEAS AND THEIR CULTIVATION FOR HOME AND EXHIBITION.'** By Charles H. Curtis, F.R.H.S., Hon. Sec. of the National Sweet Pea Society, price one shilling net, 90 pp. This little book has just been issued, and arrives at a most suitable time, when all lovers of sweet peas are preparing for the sowing season and are making out their seed orders. It is very fully illustrated, and treats of everything growers want to know, from the preparation of the ground and the sowing of the seed to the gathering of the blooms for home decoration and for the exhibition stage. In addition, there are chapters on the History and Development of Sweet Peas, the Best Varieties, the Raising of New Sweet Peas, the Winter Flowering Varieties, and the Diseases, Animals, and Insects that attack Sweet Peas. It is a bright and attractive treatise.

**THE SWEET PEA ANNUAL FOR 1908.**—This "Annual," which is the official organ of the National Sweet Pea Society, has just been published in good time to give

the members of the society all the latest information. It also gives statistics of all the sweet peas shown at the society's great exhibition in London, enabling one to see at a glance what are the most popular varieties and the most suitable kinds for exhibition. All this is most useful just now, when sweet pea lovers are selecting their seeds for the ensuing season. The "Annual" is especially interesting this year, owing to the fact that the National Sweet Pea Society intend holding their *Provincial Show* in Dublin on August 5th, in conjunction with the



**Mr. Edward Cowdy.**

*Of Loughgall, Co. Armagh, Winner of the National Sweet Pea Society's Gold Medal at the Royal Horticultural Society Show, Dublin, August, 1907.*

Summer Show of our Royal Horticultural Society. All sweet pea enthusiasts in this country are on the *qui vive*, as there are special prizes reserved for Irish growers only, one of these being a beautiful silver cup presented by Messrs. Alexander Dickson and Sons, to be won outright, first attempt. The "Annual" is very fully illustrated, and contains several interesting articles by well-known experts—amongst others, one by Mr. Atlee Burpee, the celebrated American grower, who gives his impressions of a visit to England during the summer of last year. It contains also a very complete catalogue of all the sweet peas in commerce, and "The Opinions" and "Experiences" of about fifty of the best known growers in the United Kingdom on the best varieties, the best methods of cultivation, protection against birds and insects, and the remedies employed against diseases. The "Annual" is distributed free to all members of the National Sweet Pea Society. It can be procured by non-members from the hon. sec., Mr. C. H. Curtis, Adelaide Road, Brentford, Middlesex. Price 1/3, post free

## Sweet Peas.

By H. J. R. DIGGES.



**T**HE sowing time is close at hand for those who have not adopted autumn sowing, which is becoming more generally the practice where soils are light and well drained. For spring sowing, however, the stations or rows should have been trenched and manured in November, and the surface left rough, to take full advantage of the sweetening influences of the winter's frost. Where this has not been possible,

not a moment must be lost now whenever the soil is in a fairly dry condition. An open position enjoying to the full all the bright sunshine that is to be had, where the rows can run north and south, and where the soil can be trenched three spits deep without coming upon sand, gravel, jam pots or sardine tins, is an ideal one for most sweet peas, especially if it is well sheltered from fierce winds, by trees that are not so close that they would interfere with the light and the free circulation of air. Some varieties, such as Henry Eckford, Evelyn Byatt, Helen Lewis, Scarlet Gem, and others with orange shades, must have protection from the sun's rude glare, and if a suitable position cannot be found for them artificial shading must be given. Henry Eckford is most beautiful when grown in this way, and well repays the additional trouble. It has been often said that any soil where peas grow well will suit sweet peas, but how many gardens are there where peas are never grown and where ideal sites and good depth of earth are not to be had?

**DIGGING.**—To make the best of what we have, take out a trench two feet wide, running north and south if possible and not in a draughty position; throw the top spit on one side and the second spit on the other. The depth of each spit will depend on the depth of the soil, if they can be 12 to 15 inches each so much the better. Fork up thoroughly the bottom of the trench, breaking the clods fine, and if the subsoil is gravelly or hungry place on it a good 6-inch layer of half-rotted manure, cow or pig for choice. If the sub-soil is good, a 3 or 4-inch layer will be sufficient; rake in 6 inches of the second spit, and incorporate this well with the manure, tramping it to make it firm, then rake in 6 inches of the top spit, and place upon it 3 or 4 inches of well-rotted manure, forking it well in with a little old lime or mortar rubbish, and then fill in the trench with the remainder of the top spit, mixing with it some soot, wood ashes, and a dressing of superphosphate, about three ounces to the square yard. Finish all off three inches lower than the surrounding surface to facilitate watering in dry weather. Having made all firm by tramping as the work proceeded, give a light forking after each tramping to prevent any caking of the surface, for sweet peas must have a firm root run.

**SOWING.**—It will be quite early enough to sow the seeds the last week in February or the first week in

March, and intending exhibitors at the London Show of the National Sweet Pea Society should have their blooms in good time, as the show will not be held until July 24th. When the weather is suitable and the surface in fairly dry condition take out with a "draw hoe" a trench 4 inches deep and 4 inches wide along the centre of the row. Sow the seeds singly 2 inches apart in one row, and cover with two inches of soil, making it fairly firm with the back of a trowel; cover with wire seed guards, or three or four rows of black thread stretched tightly two inches apart and about 3 inches above the surface. In about three weeks' time the seedlings will begin to appear, when they must be well dusted at once with soot or slaked lime to ward off the wily slug, and this must be repeated frequently till the plants are well established, for it is at this period of their existence that the attentions of this midnight marauder are most deadly.

**STAKING.**—When the plants are 3 inches high, thin out to 6 inches apart, earth up with the remaining 2 inches of soil, and place short, twiggy sticks for the first formed tendrils to cling to. A further thinning out of each alternate plant by-and-by will be necessary if blooms of exhibition quality are desired. The final supports should now be placed in position. Boughs of hazel, beech or birch are the best; they should be from 10 to 12 feet high, and inserted 2 feet deep in the ground; failing these, which are difficult to procure by suburban growers, strong wire netting, 4-inch mesh, supported by strong poles 12 feet high and placed 12 feet apart, makes a very good substitute.

**FEEDING.**—As soon as the buds begin to show colour, weekly waterings of weak liquid manure should be given, alternating with good soakings of rain or soft water if the season is a dry one. It is a good plan to vary this stimulant as much as possible. Soot water, Clay's fertiliser, nitrate of soda, guano, superphosphate, &c., are all good if given in weak doses—an ounce to the gallon of water, and a gallon of this to each foot run. If this treatment is continued and the flowers kept regularly gathered, no seed pods being allowed to form, the plants will continue to bloom until the end of October.

**CHOOSING.**—Individual tastes vary so much, and there are now so many varieties on the market, that it is difficult to make a selection that will please everyone.

The following, however, are good kinds for ordinary garden decoration:—Dorothy Eckford (white), King Edward VII. (crimson), Mrs. Walter Wright (mauve), Mrs. Collier (yellow), Helen Lewis (orange), Lady Grizel Hamilton (lavender), Countess Spencer or Paradise (pink), Queen Alexandra (scarlet), John Ingman or E. J. Castle (rose carmine), Black Knight (maroon), Helen Pierce (marbled blue), Dainty (picotee edged). For exhibition, the above, along with the following, will enable one to compete for all the principal cup prizes at the London Show on July 24th and at the Dublin Show

on August 5th:—Mrs. Hardcastle Sykes (blush), America (crimson striped), Jeannie Gordon (bi-color), Navy Blue, Duke of Westminster (violet), Frank Dolby (lavender), Coccinea (cerise), Sybil Eckford (blush), Audrey Crier (pink), Gladys Unwin (pink), Henry Eckford (orange), Horace Wright (violet blue), Princess Victoria (pink), Queen of Spain (fancy), Princess of Wales (striped mauve), George Gordon (magenta), Earl Cromer (lake and chocolate), Gorgeous (scarlet orange), Lord Nelson (deep blue), White Waved (white). Of the very newest varieties the following are some of the best:—James Grieve (the best yellow), Marjorie Willis (rich rose), the Marquis (mauve), Princess Victoria (blush), Mina Johnston (rose), Prince Olaf (blue striped), Evelyn Hemus (cream, with rose edge), Saint George (orange scarlet), Rosie Adams (mauve and bright rose), Silas Cole (maroon), Nancy Perkin (apricot and salmon), and a very large-flowered form,



Sweet Pea Evelyn Hemus.

One of the most distinct Sweet Peas of 1907-08. It has cream-coloured flowers with a rose-red margin to all the segments. [From "Sweet Peas and their Cultivation."]

claret shaded, with maroon, cleft H. J. R. Diggles.

Sweet Peas are *par excellence* the flowers for amateurs. They are easily grown, and most suitable for any position where shelter can be given; and while they will give quantities of bloom under almost any method of culture, they will well repay care and liberal treatment. As "things of beauty" in the garden, as clumps on the sward, as a background to the herbaceous border, as a living cover for arches, or as a screen to an ugly corner, they are unsurpassed. As cut flowers in rooms, they fill the air with delicious sweetness, and lend themselves to that lightness and elegance which is so essential to the best taste in table decoration.

# Notes and Abstracts.

By G. O. SHERRARD.

**A FUNGICIDE.**—The *Gardeners' Magazine* of Jan. 11th, 1908, contains a note to the effect that a solution of sulphuric acid (oil of vitriol), in the proportion of 1lb. acid to 100 gallons water, is employed as a fungicide at the Royal Gardens, Kew, with satisfactory results. The spraying machine used to apply the solution should be washed out with clear water immediately afterwards.

**CIDER ORCHARDS.**—B. T. P. Barker, M.A. (*Journal of the Board of Agriculture*, Jan., 1908).—In a most instructive article Mr. Barker, the Director of the National Fruit and Cider Institute, England, explains the principles governing the laying down of an orchard for cider purposes. He deals with the necessity for planting fresh orchards, many of the English cider orchards—like some of the old orchards in this country—being in an exhausted and unproductive condition. The author lays particular stress on the advisability of planting varieties in the right proportion for blending to make a good cider, and he classifies the different varieties used for this purpose into "sharp," "sweet," and "bitter-sweet" fruits for early, mid-season, and late orchards. He advocates planting apples having different ripening periods in separate orchards. An early orchard of varieties ripening from September to the end of October, mid-season containing varieties ripening in November, and late for fruit maturing in December and after. The varieties should be planted in separate groups or blocks, but too many trees of one kind should not be planted together, as some apples fruit best when cross-fertilised with pollen from another variety. The author does not recommend the planting of young apple-trees on the site of an old orchard. The soil during the life-time of an orchard becomes more or less impoverished of the elements necessary to the growth of the apple, and also affords a harbour to innumerable insect and fungoid pests. The following is a list of the cider apples recommended by Mr. Barker after being tested at the Cider Institute. Some of the varieties mentioned are not yet in commerce :—

	Sharp Varieties	Sweet Varieties.	Bitter-Sweet Varieties
<i>Early</i>	Backwell Red	Belle Norman Horners White Jersey	Cherry Norman Mayor Knotted Kernal
<i>Mid-season</i>	Cap of Liberty Dufflin Foxwhelp Frederick Kingston Black	Sweet Alford Woodbine	Master's Jersey Prince Albert Strawberry Norman
<i>Late</i>	Lambrook Pippin Red Soldier Yellow Styre	Bell	Chisel Jersey Dabinet Royal Jersey

**THE WINTER STORING OF APPLES.**—Under this heading a writer to the *Gardeners' Chronicle* of Jan. 11th describes the conditions under which apples will retain their firmness and fresh appearance during the winter months. The author gives, as an illustration of a good fruit-house, that used by Jas. Veitch & Son, who were awarded a gold medal for their collection of apples staged on December 21st at the Royal Horticultural Society's Hall. This firm's fruit-house stands in an open position, and is thatched and coated round the sides with reeds. The walls are match-boarded inside,

and the fruit stored on shelves consisting of an open trellis-work of laths. The floor is earthen, and is occasionally damped to promote a slight humidity in the air. The writer considers it of the utmost importance that a certain degree of atmospheric moisture should be maintained in a fruit-room to prevent the fruit from shrivelling, and also that the shelves should be of open work to give a free circulation of air round the fruit. Apples grown on young trees are stated to keep better than those from older ones.

## Solanum Commersonii Violet and Blue Giant.

AN important and interesting report of the experiments carried out by Professor M. Cazaux on the question of the identity of these two potatoes is published in the *Journal d'Agriculture Pratique* for January 9th, 1908. A commission of seven agricultural and horticultural savants, appointed by the Prefect of the Department, Seine-et-Marne, met in September last, and, having listened to Professor Cazaux's explanation of his experiments, proceeded to make a careful examination of the potatoes growing in the plots. As a result they came to the unanimous conclusion that no appreciable difference could be detected either in the tubers or in the foliage and flowers of these two supposedly different varieties. Later on, in October, the Commission re-assembled and made further investigations at the time when the crop was being lifted. The average yield of *Solanum Commersonii* Violet was less than that of Blue Giant, and the Commission came to the general conclusion that these two supposedly different varieties behave exactly as if they were one and the same. Professor Cazaux states that his rigorously controlled cultures of these varieties, for the past two years, convince him of their identity, and he cannot believe that such a prodigious transformation in so short a time from the wild *Solanum Commersonii* to the utterly different *Solanum Commersonii* Violet can possibly have taken place. His final conclusion is frankly that M. Labergerie has been the subject of a big mistake.

## Royal Horticultural Society of Ireland.

THE schedule of prizes for the autumn show of the Royal Horticultural Society of Ireland, to be held on 5th August, is now issued, and intending exhibitors would do well to obtain a copy from the Secretary, 5 Molesworth Street, Dublin. As the National Sweet Pea Society is holding an exhibition in conjunction with this show, there should be a more than usually interesting display, and competition for the valuable cups and prizes will undoubtedly be very keen. Prizes are offered in over 100 classes, including 46 for sweet peas alone. Gardeners and all others who are interested in the advancement of horticulture in this country should certainly join this society, which has been in existence now for 70 years. During this time it has been rendering excellent service in the cause we have all at heart. The only reliable source of income to the society are the subscriptions of its members. Ordinary members on payment of one guinea annually are entitled to personal admission to all the society's shows, four transferable tickets available for the current year, and free competition for all prizes offered by the society.

**BRASSICA CROSSES.**—Mr. A. W. Sutton, at a recent meeting of the Scientific Committee of the Royal Horticultural Society of England, showed crosses between a Savoy and Brussels sprout, and between a cabbage and Brussels sprout, each of which bore a good heart and a large number of small hearts up the stem, somewhat after the manner of a Brussels sprout. The conditions were said by Mr Sutton to be fixed.

# Evil of Overcrowding in Gardens.

By A. E. BURGESS, Horticultural Lecturer, Herts County Council.

IN the course of my numerous visits to various gardens, especially the gardens of amateurs, I notice a great tendency to overcrowd. The flower border, which should be a thing of beauty and a constant source of pleasure to the owner, is in many cases so crowded that instead of strong, vigorous plants, producing an abundant supply of good flowers, we find small, weak stems, with very poor flowers.

Perennial herbaceous plants are thought by many amateurs (and gardeners, too, for that matter) to be able to take care of themselves. I have seen some herbaceous plants that have stood in the same spot for twenty years without division. The herbaceous border should be practically replanted every three or four years if the best results are to be obtained. The plants should be lifted and divided, and the whole border re-arranged. Each plant should be given space according to the spread of its branches. This re-arrangement of the flower bed or border increases the interest and pleasure of the owner. I find the best time to divide most herbaceous plants is immediately after flowering. This, of course, means a departure from the old hard and fast rule—viz., to divide all the plants in winter or spring. Many plants will, of course, finish flowering in summer—e.g., *Doronicums*, *Iris*, &c. The hardy annuals, of course, as one can easily see, come off worse in this respect. Seeds are generally sown far too thickly. This would not so much matter if the seedlings were thinned out early. The thinning should be done early, in fact as soon as the young plants can be handled. It is best to do the work gradually—that is, let the thinning be done in three or four operations at intervals of three or four days. When the thinning is complete each plant should stand

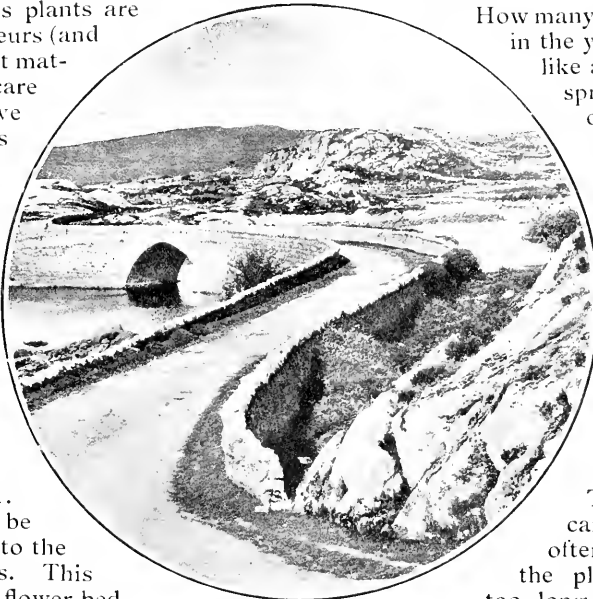
singly, from four to nine inches apart, according to the size and vigour of the full grown plant. If more care was given both in sowing and early thinning many an amateur would be surprised at the quality and beauty of the flowers.

The vegetable garden, too, comes in for its share of overcrowding. A prominent member of the Vegetable and Fruit Committee of the Royal Horticultural Society has been lately writing to the gardening press, advising cottagers and others to sow peas four inches apart in the drills, and I certainly think this is good advice. At least the plants should be two inches apart, but four is better. Runner beans should be nine inches apart, and dwarf beans from four to six.

How many have been disappointed in the yield—from what looked like a promising crop in the spring—of onions. I am often told that onions are purposely left for thinning late, in order to use the thinnings for table use as required. I venture to think, however, that it would be far more profitable to sow thinly and single out the plants early, and use the surplus seed for sowing a patch specially for pulling green. The root crops, such as carrots, beet, &c., are often ruined by allowing the plants to stand thickly too long in the beds. These should be singled out as soon as they can be handled, in order to obtain good results. The same may be said of green crops in nursery beds. Plants are often so weakened by a long stay in the seed beds that they never sufficiently recover to produce good crops. If

crowding is bad in the flower and vegetable plots, it is infinitely worse in the fruit plot.

I have in my mind two or three gardens where the trees and bushes have become interlaced, and have produced a thicket. The owners cannot make up their minds to sacrifice a few trees for the sake of the others, because, as they, say, "they are such fine trees, and it would be a pity to destroy them" when young trees (of bush form) are planted 9 or 12 feet apart, it seems to be a great distance, but it is not a bit too much.



*Scene in*

*[Co. Mayo.]*

I know not where the white road runs, nor  
What the blue hills are ;  
But a man can have the sun for friend  
And for his guide a star,  
And there's no end of voyaging when  
Once the voice is heard,  
For the river calls, and the road 'calls, and  
Oh ! the call of a bird.



## "IRISH GARDENING."

AN ILLUSTRATED MONTHLY.

OFFICES—53 UPPER SACKVILLE STREET, DUBLIN.

**Publishing Date.**—First day of each month.

**Subscription.**—3/- per annum, post free.

**Editorial.**—All Editorial Communications, copy, and photographs should be addressed to "The Editor."

**Business Communications.**—All letters regarding Subscriptions, Advertisements, and other business matters must be addressed to "The Manager."

**Wholesale Agents.**—Newsagents will please send their orders for Copies to either Messrs. Eason & Sons, Dublin and Belfast; Messrs. M. H. Gill & Son, Dublin; Messrs. Robb & Co., Belfast; or Messrs. News Bros., Cork.

**London Agent.**—Mr. G. Vickers, Angel Court, Strand, London.

**Remittances.**—Postal orders, cheques, &c., should be crossed and made payable to The Manager, "Irish Gardening."

## Larch Disease in Ireland.

By A. C. FORBES, Director, Forestry Station, Avondale.

SEVERAL of the witnesses recently examined before the Departmental Committee on Irish Forestry suggested that Ireland was quite free from the disease which is causing so much havoc in larch plantations in England, Scotland, and Wales. Unfortunately such is not the case. It not only occurs widely throughout the country, but many instances of badly diseased plantations may be met with in most counties of Ireland, although it has not as yet reached such a serious stage of virulence as in other parts of the British Isles. The exact period at which it first made its appearance in Irish woods is not recorded. Apparently it existed long before its presence was suspected, and the recent attention bestowed upon woods on many estates tended to foster an indifference on the subject which now appears to be replaced by undue anxiety.

While, however, it is too serious a disease to regard altogether with equanimity, owners of woodlands may be reassured to some extent by the knowledge that the disease has been in the country for at least a quarter of a century without causing serious damage or affecting the value of larch woods in general, with ordinary precaution in the choice of soils and situations, and the adoption of such measures as were recommended in the October number of the Department's journal. There is a fair prospect that the growing of larch for commercial purposes may not be seriously interfered with.

But one important factor in warding off larch disease lies in the power of every planter if he chooses to attend to it. With many persons the axiom that trees will grow in Ireland however carelessly they are planted or "stuck in" has been accepted far too readily. With a damp climate and mild, open winters, it is true that transplanting has everything in its favour; but allowing full credit for this fact, others must be considered as well. One of these is the check which is given to almost all trees by

the process of transplanting under ordinary conditions, and which is aggravated by drought, inferior soil, and unfavourable conditions for planting. A temporary check confined to the first season is not often a serious matter, but too frequently this check is extended, through various causes, for two, three, or even more years, and when such is the case the larch often gets into a stunted condition, from which it seldom recovers. One of the most frequent causes of this may be found in the rank growth of grass, heather, or other forms of vegetation with which ground recently planted is often covered. The larch being a surface rooter, its growth under such conditions is bound to be affected, and it is not until this growth of vegetation is weakened or killed out by shade that the tree can be said to exist under normal conditions so far as root action is concerned. To prove this, let any planter of larch pare off the surface growth of turf from a few square yards of land, and compare the growth made by the trees planted there with that of those planted in turf or heather. Given equal conditions in every other respect, the growth of the plants in cleared ground during the first three years will be about as fast again as that of plants round about them. Without going too closely into the reasons for this, it will be sufficient to say that careful planting, which provides for some preparation of the soil by ploughing, hole digging, or breaking up of some kind, according to the requirements and possibilities of each case, is the best and safest plan in all cases where larch is being planted. The choice of stout, well-rooted plants, careful protection of the roots from drying winds, and general attention to details, are all aids to successful planting, and although it would be going too far to say that a tree properly planted will continue free from disease, the commencement of its career under favourable conditions often goes a long way towards its ultimate success. We have seen larch trees planted in such a way that their failure was only a matter of a few months in any case, and hundreds of instances have been met with where they have only survived after a long and protracted struggle. These are direct incentives to disease in any case, and small wonder is it that it appears in a more or less aggravated form sooner or later.

TREE PLANTING IN CO. LONGFORD.—Mr. William Johnston informs us that the Agricultural Committee of the County of Longford are making arrangements for an "Arbor Day" to be observed on a date in February not yet definitely fixed. Mr. Johnston adds that, in the matter of tree-planting, the people of Longford have taken the matter up with great spirit, and that arrangements are being made for the immediate planting of over 3,000 fruit trees, under the County Scheme of Horticulture.



# The Clematis.

By J. W. BESANT, Royal Botanic Gardens, Glasnevin.

WHEN properly cultivated, the various species, varieties, and garden forms of the above genus are among the most useful and charming of climbing or trailing plants. Few other genera yield such a grand display over such a long season, but to get the best results strict attention must be paid to cultural details.

Many of the species are delightful plants, while a host of garden varieties have originated through the skill of several hybridists. It would be impossible within the scope of an ordinary article to deal adequately with all the species worth growing, but a few of the more distinct may be here noted.

*Clematis calycina* (syn. *C. balcarica*), a native of Minorca, and flowering as early as February and March. The habit of growth is pleasing, the shoots slender, and the leaves ternate. The flowers are white, marked with reddish purple, rather small but numerous.

*C. campaniflora*, a Portuguese species, is a rampant grower, covering a large space in a short time. The leaves are biternate, and the flowers small but freely produced, being white, tinged with purple, and somewhat nodding and bell-shaped.

*C. cirrhosa*, from North America, is an interesting and pretty species, flowering in March or earlier. This species, as well as the first-mentioned, is more or less evergreen. The leaves are ovate, and produced in clusters or fascicles. The flowers are greenish white, and rather pretty, considering the early season of their appearance.

*C. crispa* is also from North America, and flowers in summer. The flowers are nodding and light purple in colour, the leaves ternate and acute. A charming evergreen.

*Clematis flammula*, a well-known species from South Europe. A vigorous grower and an excellent subject for quickly covering a large space. It is useful for clothing unsightly spots with a mantle of greenery or for scrambling among the branches of a dead tree. The leaves are pinnate and smooth, with variously-shaped leaflets, the flowers white and very fragrant.

*C. florida*, a Japanese species, has given rise to a race of garden forms which I will mention later. The flowers of *C. florida* are of a pallid colour, and the leaves ternate, the leaflets being ovate and acute.

*C. grata*, a Himalayan species, not showy, but of

some merit through its fragrant flowers, the latter of a yellowish white colour, but rather small.

*C. lanuginosa*, a hardy Chinese species, of robust habit, producing very large flowers of a pale, lavender colour. The leaves are generally ternate, the divisions acuminate. This species has been used in hybridising to a considerable extent, and some of the varieties so raised have largely superseded the type.

*C. montana*, a Himalayan species, is one of the grandest early flowering climbers we have. The beautiful pure white flowers are usually produced in abundance in early summer, and remain in beauty for a fortnight or more. A vigorous species, well adapted for trailing over an old wall, fence, or arbour, and hardly ever failing to flower freely. In a heavy clay soil in Scotland this plant thrives amazingly.

*C. montana grandiflora*, introduced by Veitch, has larger flowers, while *C. montana rubens*, also a recent introduction of Messrs. Veitch, promises to be a great acquisition; in habit like the type plant, but with dark, red shoots and leaves and lovely pink flowers.

*C. orientalis*, an Eastern species, bears greenish, yellow flowers in panicles. The leaves are pinnate, with lobed leaflets. An interesting species, but as a garden plant it is superseded by the following variety:—

*C. orientalis* var. *tanguticus*, flowers larger than the former, and distinctly yellow. In habit the variety follows the type, but is altogether more ornamental; in autumn the feathery fruits are much admired.

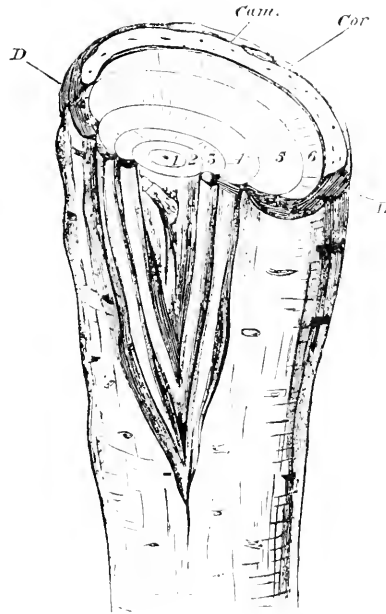
*C. paniculata*, a Japanese species, sometimes confused with *C. flammula*, and adapted for use in the same way as that species. A vigorous grower, flowering usually earlier than *C. flammula*, the flowers similar to those of *flammula*, and likewise sweet-scented.

*C. patens*, a native of China and Japan, is the type of the early flowering garden clematis, a section to be dealt with later. The species produces mauve flowers and ternate leaves, but for purely decorative work has given place to more recent forms.

*C. vitalba*, a British species, is too well known to call for lengthened notice. It is a first-class plant to use in the same way as *C. flammula* or *C. paniculata*, especially on chalky soils, where it flourishes.

*C. viticella* is a native of South Europe and Western Asia, and bears blue or purplish rose flowers, leaves generally ternately arranged with entire lobes. The garden varieties of this species are more generally met with than the type, and are more showy, flowering in autumn.

CLEMATIS OF GARDEN ORIGIN.—*C. aromatica*, a delightful plant, bearing reddish, violet flowers, each with a central tuft of yellow stamens. The leaves are variously shaped, and often irregular. This is a trailing plant, and should be planted where the shoots can hang down from some slight eminence, otherwise supports of some kind must be used. Free flowering, with aromatic flowers, it is a grand plant in its right place.



Piece of Larch Stem affected with "Canker."

Note that the trouble started after the branch was two years old (the numbers 1, 2, &c., represent each a year's growth). Once started the wound spread wider and wider each year. The disease prevented wood being formed within the affected area and killed some wood and bark already formed (marked D). Cann. shows position of the cambium. Cor. is the cortex or rind.

[After H. Marshall Ward.]

*C. Bergeroni*.—This may be of garden origin, though the fact is not known for certain. Of moderate growth, and bearing panicles of pink flowers, *C. Bergeroni* is well worth a good place in the garden.

*C. Hendersoni*, supposed to have for its parents *C. viticella* and *C. integrifolia*, is one of the finest of all clematis. The leaves are various, simple or cut, and the flowers, of medium size, are rich blue in colour, and somewhat bell-shaped. It is a vigorous plant, flowering in summer, and for a considerable period.

*C. Jackmanni*, a well-known plant, and one of the best, being the type of a popular garden group or section notable for the abundance of flowers produced in late summer and autumn. Free flowering, and bearing a profusion of fine, violet purple flowers, *C. Jackmanni*, in its season, is one of the showiest plants in our gardens.

*C. intermedia*, an excellent plant, bearing medium-sized blue flowers in abundance, a free growing subject suitable for a pergola, where it should have plenty of room to extend.

**THE PATENS SECTION.**—*C. patens*, already mentioned, is the type of the spring-blooming clematis, which produce their flowers from ripened wood of the previous summer's growth. It is the shoots from which the flowers are produced that must be carefully noted when pruning. With this and the following section pruning should be done immediately flowering is over. Local circumstances must determine how far back the shoots must be pruned. The point to bear in mind is that new growths must be encouraged, which, when well ripened, will produce flowers the following spring. So very many lovely varieties are available nowadays that one refrains from giving a list of names, feeling sure that reference to a reliable nursery catalogue will reveal sorts to suit all. Most catalogues arrange the varieties conveniently in their sections.

**THE FLORIDA SECTION.**—The varieties of this section are termed summer bloomers, flowering a month later than the Patens set, and from the ripened wood in the same way. Treatment may be the same, and here again there is abundance of choice in the matter of varieties.

**THE JACKMANNI SECTION.**—In this section the varieties are again numerous, but flower considerably later. The flowers in this case are produced on shoots of the current season's growth. Pruning, therefore, is best done in early spring, when strong, young growths will soon push forth and bear abundance of flowers when the early flowering Patens and Florida sections are over. The climbing or trailing, more or less woody, species and forms of clematis are capable of division into many more sections, but the foregoing example will serve to show the necessity for such division. When grouped in this manner, according to mode and time of flowering, the necessary treatment in the way of pruning is at once apparent, and the cultivator who studies his plants is able to obtain grand effects.

**THE HERBACEOUS SECTION.**—The species and varieties of this section are usually found in the herbaceous border, and make a charming display when well grown. *C. integrifolia*, from Eastern Europe, is a fine, blue flowered species, attaining three feet in height. The flowers are rather large and nodding, and the leaves entire. *C. integrifolia Durandi* has much larger flowers, and is a very handsome variety. *C. recta*, with scented white flowers and its charming double variety, are excellent border plants.

Numerous other species and varieties might be mentioned which add to the interest of this charming genus, but one cannot try the editor's patience unduly. Most of the species and some of the varieties mentioned will be found in the clematis collection in the Royal Botanic Gardens.

As to soil, a well-drained, but not dry, medium with plenty of heart in it, will suit well. A poor soil should be enriched with well-decayed manure. If the soil is light and inclined to be hot, cow manure is preferable.

If nurserymen could see their way to supply plants on their own roots less would be heard about clematis "going off."

## Roses. By O'DONEL BROWNE, M.D.



WHEN visiting gardens of any size, I generally noticed that the planter or owner has made some attempt to group each individual colour into one particular bed, so as to give a greater contrast to beds on either side. When you visit a rose garden you hardly find this line of treatment carried out, but annuals, &c., are generally so treated.

Now, no flower, in my opinion, lends itself more to massing than the rose, and anyone who has ever seen a large bed entirely taken up with one particular rose will, I think, agree with me that the effect is better than by planting your trees here and there with a mixture of colour. It is true that you want a good deal of room for this method; but why not have a large number of small beds? The biggest mistake I see made is generally that the rose garden is too big for the number of trees it is to hold, with the result that you see more bed than flower. Nothing can look worse, especially should a plant die and leave a gap. Again, there are some roses which will not lend themselves too well to bedding, being either too weak growers or not free flowering in their habits. My ideal of a massed bed should be one which is constantly in bloom and well furnished all the season. This you can get by planting the right sorts. If you think the bed looks too formal and stiff, then relieve the level monotony by planting some half-standards of the same variety here and there through the bed. The bed to receive these plants should be well prepared, as once planted you should not disturb any trees for some years. It should be literally treated to good soil and manure should your ground be found poor in quality. The plants should be planted at most eighteen inches from one another so as to well furnish the bed. In the following spring they can be cut very hard back to promote the best growths, which in the following seasons will give you more bloom in consequence. But beware in the following springs at pruning times of pruning your beds like you see the hedges cut on the roads. By this I mean you are not to cut every tree to the same height as its neighbour, irrespective of strength of growth, but you should prune judiciously.

Every year, however, some rods, especially the oldest, should be cut right out, as a bed of trees leggy in the bottom and all flowers at the top is a hideous sight, and it shows you do not understand pruning. Try and fashion in your mind what the bed should look like, and prune accordingly. The soil should be well hoed all the summer, and treated now and then during the year, except the first, to an odd dose of some artificial manure. Roses like food, and can assimilate a good deal of proper nourishment. Be careful, however, in using this food that you do not let any on the foliage or you will have

a pretty bed (?) to look at. In all dry times during summer give them a real good soaking of water, especially after applying the artificial manure. Keep all insects under perfect control, and mind mildew or your bed will look as if it were mid-winter instead of mid-summer. When the flowering season is over, you may shorten any growths that catch the wind a little, to prevent your plants from too much buffeting in the winter's gales. We do not practice this game half enough in Ireland, though it is done regularly by our neighbours in England. Can it be put down to our laziness or ignorance?

Now, I must tell you some suitable varieties that ought to do well under this treatment and fulfil the conditions I have given above. You will find a majority of H. T.s and Teas in the list, as they are more free flowering than the H. P.s, but we cannot well do without some H. P.s.

Frau. Karl Druschki, Mrs. John Laing, Alfred Colomb, Senateur Vaisse, Hugh Dickson, Mrs. R. G. Sharman-Crawford, Ulrich Brunner, Captain Hayward.

La France, Betty, H. A. Moore, Mme. Jules Grolez, La Tosca, Mme. A. Chatenay, Liberty, Caroline Testout, Lady Ashtown, Mme. Ravary, Mrs. Peter Blair, Dean Hole.

White M. Cochet, Rubens, Hon. E. Gifford, Lady M. Corry, Lady Roberts, Maman Cochet, Souvenir de S. A. Prince, Francisca Kruger, Corallina, G. Nabonnand, Sulphurea.

Of course this is but a short list, but just try Frau. K. Druschki, Dean Hole, Hugh Dickson, and see how you like them for a start.

## The School Garden.

By L. J. HUMPHREY, Special Instructor in School Gardening under the Department of Agriculture and Technical Instruction for Ireland.

IN the columns of this journal will be found all the necessary instructions for the cultivation of vegetables for school or other gardens, and for this reason instructions as to the time of planting and methods of sowing will not be repeated here. There are certain considerations, however, which should influence both the variety and the position of the vegetables grown in the school garden. Of these, one of the most important is to secure an arrangement of the vegetables that will obviate any chance of the earliest sown being disturbed by the work of planting the later kinds. A suitable plan is to start at the end of the plot with the earliest row of peas, for example, following this by a row of broad beans, then one or more rows of potatoes, and so on through the plot, gradually planting a portion, lesson by lesson, till the whole plot is planted. For the sake of effect, space can be left at the beginning of the plot for a row of beet—a variety, such as Dell's Crimson, which will make an effective edging, and one which can be turned to more profitable use, as a rule, than a long row of the parsley, so frequently employed for this purpose. Indeed, a small clump of parsley on each plot is usually sufficient for all requirements. Owing to the limited size of the plots, tall-growing varieties of peas are not to be recommended, as they shade and consequently influence the cropping of too large a proportion of the plot. On a plot 40 feet in length two rows, at least, of peas sown at intervals for succession should be grown, and these varieties should not exceed 3 feet in height. For a similar reason, if runner beans are grown on the plots, they should be kept low by pinching out the growing points, or trained over the main dividing walks on light arches of bamboo or laths; though, unless materials are very plentiful, the cost of staking will render it necessary to limit the number of clumps to be grown in this way. In allotting space for each vegetable to be grown, it is as well to remem-

ber that the boys who will work the plot are somewhat inexperienced, and a simple arrangement, allowing ample room to each vegetable, will be much more easily worked, and will produce a more lasting impression on a boy's mind than a plan which is too elaborate or in which the plants are grown so close together as to appear in any way confused.

During February a beginning should be made with the sowing of the vegetable seeds on the plots. A row of early peas, followed by a double row of broad beans, and if the weather is favourable and the soil in good order parsnips may be sown for the main crop. Under similar conditions a row of early potatoes should be put in, but otherwise the tubers are better left in the boxes, in which they will have been placed to sprout long since. If any vacant ground has not yet been dug, this should be done at once, and manure added at the same time. In the borders artichokes (Jerusalem and Globe), rhubarb and seakale should be planted. Spraying of fruit trees and bushes must be completed in the early days of the month or the buds will be too advanced to be uninjured by the caustic spray. Any re-arrangement of flower borders should be completed this month, and vacant spaces noted to be filled with annuals at a later date. With these notes as reminders, the columns under "The Month's Work" should be consulted for details of these and other plants for which in this column space cannot be found.

### Roses for Perfume.

THE rose grower who from one cause or another may have neglected to order his supply is not yet too late, as with care the planting may be done with safety up to March, pruning following in the ordinary way. Personally I do not cut back for a little while after planting, as I fancy I can distinguish a good plump bud better when the bush has been a fortnight or so planted than I can at the time of planting; but this is largely a matter of practice, some growers cutting back and planting on the same day. However, before either planting or cutting can be done, the bushes must be procured first, and it is to the intending purchaser I address my remarks.

To him might I address a reminder of some of the older varieties, known to be specially endowed with that subtle distinctive odour which does so much to maintain the rose in its proud position, "Queen of the Garden," and which is so often sadly lacking in some, but I am glad to say not all, of the later day introductions.

While the few I select are certainly highly perfumed and are selected for that reason, it is not their only merit, several of them holding their own for early and late blooming, colour, shape, vigour, &c., with the best of the new varieties; in fact few of the best collections I have seen exhibited for several years were without one or other of these "old reliables."

With planting, pruning, &c., an older correspondent ably deals, and with a word of advice to order early I append my selection of perfumed roses:—Alfred Colomb, Auguste Rigotard, Charles Lefebvre, Dr. Andry, Duke of Wellington, Duc de Rohan, Etienne Levet, E. Y. Teas, Jeannie Dickson, Ulrich Brunner, La France, John Keynes, Mad. Gabriel Luizet, Marie Finger, Star of Waltham.—J. J. CURLEY, Co. Sligo.

WASPS.—We have heard it said that the white perennial cornflower (*Centaurea*) is a perfect trap for queen wasps during the months of May and June. It has been stated that a gardener in Westmeath caught and killed over 100 queen wasps on this flower in one season. Perhaps some of our readers who are troubled with wasps will try the experiment during the ensuing season and communicate the result to us.

## Current Topics.

By PETER BROCK, Orchard Terrace, Enniskillen.

THE weather is the principal factor in controlling outdoor work during the winter season. The lateness of harvesting root crops, being followed by a long period of wet weather, has caused tillage work to be more backward at this date than usual. Heavy land that was roughly dug, ridged, or ploughed before the heavy rains set in has been nicely mellowed by the recent snaps of frost. This is a good object lesson on the importance of early winter cultivation of stiff clay land, as it not only economises labour in spring, but whether for seed, trees, or other plants the advantages to the crop will invariably more than compensate for extra labour or energy in pushing on this work on every opportunity when the ground is dry enough, so that stiff soil may be exposed as much as possible to the action of frost and drying winds. As the day lengthens the drought generally strengthens, and we may hope to soon see more land in a better state of preparedness for the coming season's crops.

The summer of 1907 will be long remembered by farmers and gardeners for the prevalence of cold, cutting winds, which in many places caused ill-effects, especially on fruit crops. Shelter belts or screen hedges should, as a rule, be planted in advance of fruit crops. There are, however, many young orchards inadequately protected where a screen could be grown to lessen the effects of wind. For this purpose a line of Lombardy poplar, planted 3 feet apart, with two plants of oval-leaved privet between, will produce an effective wind-break in a few years. The poplar can be controlled in height by pruning, and will draw up and support the privet to a greater height and in a shorter time than whitethorn.

The land on which it is intended to plant such a screen should be deeply dug or trenched, and may in some cases be improved by adding road scrapings. It should also be kept free from weeds for at least the first few years. The myrabola or cherry plum, whitethorn or beech, where they can be grown to a good height, form effective wind-breaks. However, where a belt of about 30 feet in width can be set apart for shelter, evergreen trees are preferable.

## Notes from Glasnevin.

A NEW departure that will be greatly appreciated by a large section of visitors to whom Sunday offers, practically, the only opportunity to visit the Gardens, was recently inaugurated by throwing open the Orchid Houses on that day. Till the closing days of last year those so situated had to content themselves with such glimpses as might be afforded them from without through the steamed panes; this was indeed to see through a glass darkly. Now, however, all this is changed, and

entering by way of the Palm and Tropical Fern Houses (the latter also hitherto closed) one is brought face to face with one of the most notable and, at this season, most beautiful groups of plants in the Gardens. Now (January 20th) there is a most interesting display, comprising, among many others, the following: *Vanda* (*Arachnanthus*) *Cathcartii*, *V. amesiana*, *Laelia superbiens*, *Cattleya percivaliana*, *Cynoches lowiana*, *Saphronitis grandiflora rosea*, *Cypripedium acaule*, *superbum*, *C. vanusium*, *perdinum*, *C. stonei*. *Calanthe veitchii* still maintains a fine show.

The following three remarkable species are in bud, and promise shortly to attract notice: — *Eulophiella petersiana*, *Cypripedium lindleyanum*, *Angraecum sesquipedale*.

In the Stove is a nice group of *Coleus thyrsoideus*. Out of doors the march of events is indicated by the first appearance of the winter aconite (*Eranthis hyemalis*). In the bog garden *Rhododendron parviflorum* is in flower, and *R. dauricum* is about to follow suit. The recent spell of frost has left its baneful mark on

several shrubs. The flower buds of *Magnolia stellata* have suffered severely, and the foliage of *Tricuspidaria lanceolata*, which was also thickly set with flower buds, is much scorched. This, however, belongs to a class of facts that do not obtrude themselves, and a merely general survey shows the Gardens as beautiful and apparently immune as if no such spell had occurred.

W. B. B.

TAMARISKS.—A correspondent asks advice as to the kind of shrub that may be planted on poor soil by the sea so as to form a shelter for herbaceous plants. The tamarisks are excellent for this purpose. They can withstand both wind and salt spray, and are, at the same time, plants of exceedingly graceful form and foliage.



*Meconopsis Integrifolia.*

A large yellow-flowered Poppy recently introduced from Tibet. The plant forms a rosette of hairy oblanceolate leaves, from the centre of which a stout stem arises which bears from six to ten large pure yellow flowers, 6 to 9 inches in diameter. These are much more durable than the usual Poppy flowers, individual blooms remaining on the plant from ten days to a fortnight. [Reproduced by courtesy of Messrs. Tait & Co.]

# The Month's Work.

## The Fruit Garden.

By GEORGE DOOLAN, Instructor in Fruit Culture, Department of Agriculture.



IN the matter of planting young fruit trees it is most important to get the work completed during the present month, as the months of March and April are busy times with the farmer and fruit grower. Choose favourable weather

and when the soil is in good working condition for the planting. A good system on which to plant is to allow 12 feet between the larger trees, such as apples, pears, or plums, having every alternate tree a half standard or three quarter standard—i.e. :—

o	x	o	
*	*	*	
x	o	x	(x) Standard Apples or Plums.
*	*	*	
o	x	o	(o) Dwarf Apples, Pears, or Plums.
*	*	*	
x	o	x	(*) Currants or Gooseberries.
*	*	*	
o	x	o	

This system of mixed fruit plantation, as recommended by the Department of Agriculture, has many advantages. It will be seen that the standards are placed 24 feet apart every way, which permits the bush trees being cut out in the course of years, thus allowing only the standards to remain. The bush apples should be on the Paradise stock, which has a tendency to keep the growth dwarf and fruitful. Small bushes, such as currants and gooseberries, may be planted as indicated on above diagram. Between the lines there will be 12 feet of clear space in which cabbage, potatoes, mangles, turnips, or strawberries can be grown; such space for several years can be cultivated by horse labour. When planting, the soil should be well broken, and, if it has been in tillage for a long time, old mortar-rubbish and road-parings may be added. If it was freshly ploughed the grass sods should be placed beneath the roots of the trees. Place very fine soil between and about the roots, having first cut off any broken pieces of roots. Do not plant deeply—the best and most fruitful fibres are near the surface. Make the soil very firm with the feet, and drive a stake firmly into the ground, to which the trees should be tied; this is important in cases of newly planted trees.

A mulch of manure on the surface is also of great advantage, as newly planted fruit trees are very liable to suffer from drought, and manure will help to keep the soil moist about the roots.

**PRUNING.**—This necessary work should also be carried out without delay. A good rule to follow is—to prune weak trees hard and strong growers moderately, thinning out shoots where too thick, and keeping the centre well open. Weak side growths should be spurred back to 2 inches of their base and leading shoots to one-third of their length. Always cut to an outward eye, so that in the following season the growth will be in an outward direction. The great purpose of pruning is to shape the formation of the trees, and if this has been well done the benefits will be manifold—the wood is more matured and better fitted to bear; sun has a beneficial effect both upon the tree and the fruit.

**SPRAYING WITH CAUSTIC WASH.**—To keep fruit trees clean and healthy this operation should be carried out. It should not be done later than the present month, as there is a danger of young buds being injured. The mixture is prepared as follows :—

1 lb. caustic soda, 1 lb. crude potash,  $\frac{3}{4}$  lb. soft soap. Dissolve soda carefully, as it is liable to burn the skin if it gets on the hands; then dissolve the potash in hot water and add to the soda; lastly, dissolve soft soap in boiling water, and well mix with above; add water to make 10 gallons of mixture, and spray with potato sprayer. This work should be done in calm weather.

## The Vegetable Garden.

By WILLIAM TYNDALL, Instructor in Horticulture, Co. Kildare.

DURING February and March careful attention will require to be especially paid to airing and watering of frames on hotbeds in which such vegetables as potatoes, carrots, radishes, and lettuces are being forced, and small seeds raised, such as cauliflowers, Brussels Sprouts, and the many kinds of half-hardy annual flowers. Always give air on fine, mild days before the temperature has very much increased, but do not give full air at once, as careless cultivators generally do, thereby causing a chill. Give a little air at first, then gradually increase it as the day gets warmer. Close down early so that the stored heat may be longer retained in the frames during the night. If the glass is well covered with mats it will increase the protection. Attend to the singling out of plants such as onions, leeks, and lettuce raised from seed sown last month, and then re-planting in other boxes and pots. Use the same kind of compost as before, with the

addition of about 2 gallons of good, fine bone meal (free from dust) to each barrowful of mixture. Put on the leaves placed over the drainage at the bottom of the boxes about one inch of well-decayed manure passed through a half-inch riddle. Press firmly, and add a couple of inches of the prepared mould over the manure. With such a preparation no trouble should be experienced in securing good balls of soil to the roots when removing later the plants from the boxes. If early leeks are required put a few of the strongest plants into 4-inch pots, one plant in the centre of each pot, putting them down as low as possible when potting. Give a shift into 6-inch pots when ready before planting out.

**TOMATOES.**—Pot off singly into 4-inch pots, and place on shelves near the glass, exposing them to good light so as to prevent them becoming drawn and weak. Repot into 6-inch pots when ready, and for this potting increase the quantity of loam and reduce the amount of leaf-mould. After the plants have got over the check of potting remove to a more airy house. Keep the plants to single stems, as these always give the earliest fruit which are generally got from single cordon plants in boxes or 10 and 12-inch pots.

**SEAKALE AND RHUBARB** will force much more easily now that they have had a season of rest, and less heat will be required to promote growth, whether they are forced where they are growing, in greenhouses under shelves or in a mushroom house.

**FRENCH BEANS.**—Make a couple of sowings during the month. Canadian Wonder is a grand variety for late forcing. Use 10-inch pots, putting 8 or 10 beans in each pot, using rich soil. When the bean plants are 6 or 9 inches high put some light, dead spruce branches, or those of beech, around the sides of the pots to keep the plants from falling about; the stakes may be about 2 feet high.

**PEAS.**—Once February comes and the weather is suitable, always try to get in some early peas, selecting a border facing south and well sheltered. The ground should have been manured and turned over roughly early in the winter, and before breaking the clods down with a fork or rake it would be beneficial to give a dressing of wood ashes or burnt garden refuse. On account of the ground being so cold and wet this year I would advise covering the peas with fine, light soil, such as siftings from the potting bench, mixing with it a little lime and soot. Wm. Hurst is one of the best dwarf peas for this early sowing, while Early Bountiful and William I. grow about 3 feet high, and yield heavy crops. These varieties, being round-seeded, are much harder than the marrowfat peas, but they lack their flavour. Anyone having a dry, sloping border facing south or a space under a wall should sow some seeds of Gradus, a grand early marrowfat pea growing 4 feet high. Peas raised in boxes in frames sown last month should receive plenty of air now that they are up, and will be in a good way for planting in the open ground in a month or six weeks.

**CAULIFLOWERS.**—Plants in frames, sown last August, should get plenty of air on mild days by removing the lights, so that early in the next month the strongest plants will be fit for planting out. Cauliflower plants raised in heat from seed sown as advised in January will require singling out into boxes filled as follows:—On the bottom of the box place a good layer of leaves for drainage, over that an inch of riddled horse droppings or mushroom bed manure, and then fill to near the top with loam from an old pasturage which has been passed through a half-inch riddle before using. Make firm.

After separating the plants keep them warm for a few days till started before putting in cold frames. Plants treated as above seldom suffer from damping off, also known as "black leg." They lift too with good balls of earth attached to the roots when transplanting and therefore receive no check. Brussels Sprouts may be treated similarly.

**SPRING CABBAGE.**—This is one of the most useful garden crops, and the ground between the rows should in dry weather be well hoed and the plants slightly moulded up to hasten growth. Before hoeing give a dressing of some good artificial manure—a small teaspoonful of nitrate of soda given every two weeks causes the plants to start growth quickly and heart-in rapidly. If more ground is to be filled with cabbage plants this may be done, and if plants are short make a sowing in heat of Express cabbage seed, and treat the same as cauliflowers.

**SPINACH.**—Make a sowing of Victoria Round spinach on a warm border about the middle of the month. Sowings should be made every three weeks.

**PARSNIP.**—Towards the end of the month parsnip seed may be sown for the general crop in ground deeply trenched and heavily manured for a previous crop, not using fresh manure, which causes the roots to fork or branch. Sow in rows 2 feet apart (though some prefer only 18 inches) draw lines  $1\frac{1}{2}$  inches deep; sow the seed thinly, pressing firm, and level in the soil with back of rake.

**BROAD BEANS.**—These can be raised like early peas by sowing in boxes and transplanting to the open ground. Treated this way the plants commence bearing much earlier, fully as fine pods are obtained, while there is no fear of failure of crop from bad weather causing the seed to decay. If such means are not available a sowing of one of the long-pod varieties (see calendar last month) can be made in the open ground. Open trenches  $1\frac{1}{2}$  feet deep and 2 feet wide, break up the bottom and put in about 1 foot of well-decayed manure, 3 or 4 inches of fine, good soil over it, sow beans in a double line 6 inches apart, the beans same distance in the line, and cover 3 inches deep with fine soil.

**CELERY.**—About the middle of February is a good time to make a sowing of celery for early use. Often failure follows the early sowing of celery through bolting or running to seed. Many growers believe it is the early sowing that is the cause, but this is not so; dryness at the root and consequently check is the chief reason, and if time and attention to the earing of the plants cannot be given only sow the main lot next month. I always sow in boxes very thinly, covering lightly. A frame on a good hot-bed is the best place, the plants being close to the glass, and therefore not drawn up weakly as often happens if the boxes are placed in greenhouses.

**POTATOES.**—A small sowing of these should be made towards the end of the month either at the foot of a south or east wall or on a warm sheltered border in front of glasshouses, these coming in fit for use two or three weeks before those planted in the open next month. Use some light soil for covering in the sets, the latter being prepared for planting by sprouting, as recommended in my note on early forced potatoes last month. Look over the early and main crop seed potatoes in boxes, disbudding to one or two growths in each tuber unless they are to be cut before planting; also give plenty of light and air to get strong sprouts.

**ARTICHOKES.**—Jerusalem artichokes, like all vegetables, well re-pay good culture, and finer and ever roots are produced, free from the knotty and irregular growths we so often see on artichokes. The ground should be deeply dug and well manured. Select medium-sized sets, and plant in rows  $2\frac{1}{2}$  to 3 feet apart, and at least  $1\frac{1}{2}$  feet between the sets; cover about 6 inches. The new white artichoke is a great improvement in shape and quality on the old coloured variety.

## The Flower Garden.

By J. G. TONER, Horticultural Instructor, County Monaghan.

CINERARIAS coming into bloom will be greatly helped by occasional waterings of weak liquid manure, and fumigation should be attended to so as to prevent attacks of fly. *C. stellata* is very popular, and well-grown specimens make a fine display, more especially where there is sufficient room to show them off. The dwarf French variety is suitable for small pots, and excels in size of individual flowers.



J. G. Toner.

Gloxinias may now be started into growth. A good plan is to shake the tubers clear of the old soil and place them in boxes well drained and filled with a light, rich compost; they may then, as sufficient growth is made, be potted into their flowering pots. A brisk heat and moist atmosphere suits them admirably while growing, but later, as they come into flower, the conditions must be somewhat cooler and drier, otherwise the flowers will suffer. Shade is also essential.

Genistas, cupheas, azaleas, and rhododendrons will now be in or coming into flower, and as they are all so easily grown, even the smallest conservatory should not be without them. Tuberos begonias may now be started for early flowering, and seeds of these and also gloxinias may be sown; as they are so very fine they should not be covered with soil, but a piece of glass should be laid over the pots or pans and shaded or covered with brown paper. A temperature of 65 to 75 degrees is required.

Sow sweet peas in pots or in shallow and narrow boxes. If sods, say two inches thick, are laid over the drainage in the latter and the seeds sown on them and covered with rough soil the transplanting can be performed later on without much harm to the roots. There being such a wonderful variety of colour in these beautiful flowers every taste can be suited.

Lobelia, golden feather, antirrhinums, dwarf (splendid for bedding purposes), petunias, &c., may all be sown now. Cyclamen seeds sown now will give nice plants which will flower next winter and spring; but it is more usual to sow these in August or September, as the plants then grow much larger and flower earlier.

Fuchsias may now be cut into shape and started into growth. They may be syringed occasionally so that they may break freely, and when a few inches of growth has been made re-potting should be attended to. Plenty of young shoots can be selected later on for increase of stock.

As mentioned last month, work connected with herbaceous borders should be done when the weather conditions are suitable and the soil is in a proper state for working. Good judgment is essential in dealing with the planting of herbaceous subjects. Height, size, season of flowering, and harmony in colour must be kept in view; it is usual also to leave spaces towards the front portions for biennials and annuals, which add much to the effect during the season.

Roses, deciduous and evergreen shrubs, climbers, &c., may now be planted with every prospect of success if the positions for these have been prepared beforehand, as is the practice of those who devote some thought to their work. Advantage can be taken on the first favourable opportunity of having them placed in such positions.

Beds or borders should be now prepared for carnations which were layered last autumn, plenty of leaf-mould being worked in, and during the early portion of the next month the young plants may be transferred to them. Many of the best growers have this work finished in autumn, and are largely the gainers thereby.

Walks should, at this season, be seen to and put in good order. If inclined to be very weedy they may be turned over to a depth of three or four inches; at the same time improve their shape and level them, as nothing adds so much to appearance as well-kept walks.

Box-edgings, too, may be planted or renovated as is necessary. The dwarf variety will in most cases be most suitable.

Lawns should be rolled and cleaned where necessary, and the grass edgings and verges trimmed with the edging iron, and all made straight and neat.

## School Gardens in County Kildare.

IN the report just issued by the County of Kildare Agricultural Committee, reference is made to the successful establishment of demonstration gardens in connection with primary schools. Already gardens have been started and suitably equipped at eleven schools, and their value as an educational factor in the training of youth is referred to as follows:—"Considering the disadvantages that necessarily followed such a late commencement, the scheme has worked remarkably well, and opening up, as it does, such vast possibilities for the advancement of Horticulture, the Committee are confident that much good will spring from it in future years. It offers a golden opportunity to the younger generation of acquiring a thorough knowledge of the means by which the cultivation of fruit and vegetables may be made a profitable industry, and in this connection, apart from its worth as an educational factor, the Scheme of Horticultural Instruction will inevitably be productive of good results by inculcating principles the adoption of which will tend to materially increase the slender income of the cottager and small farmer."

## Sweet Pea Show, Dublin.

THE Provincial Show of the National Sweet Pea Society, which will be held in Dublin this year on August 5th, in connection with the Summer Show of the Royal Horticultural Society of Ireland, will be the great event of the year for Irish growers of sweet peas. The prizes will include the Edwards' Challenge Trophy, value fifteen guineas, for twelve bunches; the Edmondson Challenge Cup, value five guineas, for eighteen bunches; two gold medals, five silver medals, and about £30 in money prizes, open to all growers of sweet peas in the United Kingdom (trade excluded), and a special class for Irish growers only (trade excluded), including The Dickson Cup, presented by Alexander Dickson and Sons, Ltd., value five guineas, for twelve bunches, to be won outright, first attempt, the other prizes in this class being three silver medals, and money prizes to the value of £9. There are also three silver medals and £20 in money prizes offered to all growers, the trade included. Full particulars can now be obtained from the Secretary of the Royal Horticultural Society of Ireland, 5 Molesworth Street, Dublin, and from Mr. C. H. Curtis, Hon. Sec. of the National Sweet Pea Society, Adelaide Road, Brentford, Middlesex.



## Correspondence.

### SUMMER PRUNING.

DEAR SIR,—I was pleased to note the prominent place given to Summer Pruning in your last issue. Both its importance and the confused ideas obtaining on the subject warrant a special place for it in your useful journal. If Mr. Moore's effort to show gardeners what may really be included under the term "Pruning" is successful, I shall be glad indeed. As he remarks, there has truly been much "playing with words" about pruning, pinching, thinning, &c.

The time of carrying out the work is of great importance, and in this respect every case must be dealt with on its merits. In East Anglia it is quite a common thing to hear it spoken of as "Midsummer Pruning." This is a misleading term in many cases, as it leads the beginner to prune too early, thus doing more harm than good. Generally speaking, the more vigorous trees should be pruned last. I am reminded that Ireland has a much heavier rainfall than Essex, hence this factor should be borne in mind when selecting a date for commencing the work. Otherwise far too much secondary growth will probably result.

I must fully contend for the great value of the practice in careful hands. The present need is for original observation as to results on various kinds of fruit trees in different localities. I hope that this work will be undertaken in many quarters during the coming summer. If it had been more general in the past little would have been heard of the manufacture of blossom buds as a result of summer pruning, regardless of all surrounding conditions. Many a grower has been puzzled by such statements, as an examination of his trees has shown that the buds described on paper were often absent.

There are many factors in the case such as soil, stocks, vigour of individual tree, whether a crop is being carried or not, rainfall and general character of the season. The careful grower will do well to allow for these in carrying out the work. In the past year I have endeavoured to schedule the results of summer pruning as related to the above points, with a view to establishing a working basis for cultivators. This has been communicated to the Scientific Committee of the Royal Horticultural Society, and will be published in their journal.

Chelmsford, Essex.

C. WAKELY.

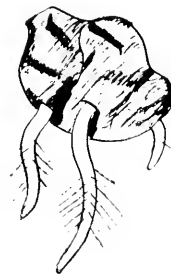
## Answers to Correspondents.

*Correspondents when asking more than one question, will please write the queries on separate sheets of paper.*

CLEMATIS.—"Novice" writes:—Please give me the name of a good white clematis for a warm western aspect, and also state what sort of feeding is best for these plants. Mr. W. J. Besant replies as follows:—*Clematis montana* would probably suit you. It is a vigorous grower, and does well in a west aspect, provided the soil is not shallow and sandy. It flowers in May and June. *C. Jackmanni alba* flowers in early autumn, but is not so pure a white as *montana*. Duchess of Edinburgh, a double white, is offered by all the leading nurserymen, and there are various white varieties among the many garden forms of clematis, but few, if any, give the wealth of bloom of *C. montana*. As to feeding—If your soil is poor it must be enriched with good loam, and if you can add some old cow manure, so much the better. If you have recourse to artificials only use some quick-acting manure (see advertisement pages), applied sparingly after growth begins, and apply plenty of water in dry weather.

ROSES.—The same correspondent ask for certain information about roses. This is Dr. O'Donel Browne's reply:—(1). Prune all your roses this year very hard—*i.e.*, dwarf and standards to two or four eyes on strong rods, take out all unripe and weak wood. Prune to an outlooking eye. You may prune H.P.s. early in March, H.T.s. in mid March, and T.s. the first week April. (2). It would be well to cut climbers back in same way, as by so doing you get better growth. (3). Certainly mulch in April or May, having previously hoed ground. (4). Your selection is very good, but your wall roses could be better. You should have planted Climbing Mrs. Grant, Mme. Jules Graveillaux Ard's Pillar against lower wall instead of the tree you mention. (5). Cesse. de Turenne and J. B. Clark are too vigorous for a bed along with others. I should lift them and put them on pillars, and in their place in bed put Lady Ashtown and Gustav Grunerwald. If you want more advice write to Editor, and he will forward your letter to me, and I will reply.

SELECTION OF SEED ("Practical," Co. Antrim).—There is no doubt whatever that by judicious selection of seed the yield of crops may be considerably increased.



A three-seed Ball of Beet, showing how (by the comparative length of rootlets) the plantlets in the three-seeds differ in vigour of growth.

There are, as a rule, great differences in strength and vigour among the seeds produced on the same plant. Size may be taken as an indication of quality. A well-sized, plump seed is one that has been well fed and has had plenty of room to develop, while an under-sized one has been handicapped in its growth, and is therefore relatively weak in constitutional vigour. If we take, for example, a "seed" of beet, we find that it is not a single seed, but a cluster of three or more seeds. The topmost seed in the cluster is the strongest, as it has had more room and is better fed than the others. On germination the comparative vigour of the embryos contained in the seed is soon shown (see illustration). A definite case may be

cited where beet seeds were detached and ranged in order as to size. The proportional weights of the young plants, matured roots and eventual yield of seeds were as follows:—

Graded Sizes	Weight of Young Plants	Weight of Roots	Yield of Seed
I. (largest)	100	1,156	241
II.	74	859	167
III.	67	574	202
IV.	51	344	239
V.	46	310	104

For garden work we are convinced that it would pay handsomely to discard all the smaller seeds and sow more thinly, using only the larger, and therefore more vigorous seeds. Seedsmen who grade their stock and sell only the larger seeds must charge more for them, but the extra cost will be returned manifold at harvest.

"E. D."—Evening Primroses (*Ænothera*) are easily grown in all soils. They are bright in colour, fragrant, and free-flowering. They may be had in whites and all shades of yellow.



**BEE-KEEPING MADE PROFITABLE.**

Every Bee-Keeper who desires success should read

## **THE IRISH BEE JOURNAL**

(Established 1901).

*Official Organ of the Irish and Affiliated, Cumberland, and Perthshire B. K. Associations.*

**THE LARGEST PENNY BEE PAPER IN THE WORLD.**

Received with enthusiastic approval and congratulations at Home and Abroad.

"One of the brightest in the world."—*Gleanings (American).*

"One of the liveliest and best Apiarian Journals in all Europe."—*American Bee-Keeper.*

"Could not be equalled."—J. FAHY, Kilkenny.

"*Facile Princeps.*"—Rev. W. Y., England.

Monthly 1d.; 1s. 6d. per Annum, Post Free.

From the Office, IRISH BEE JOURNAL, Lough Rynn, Dromod, and of all Newsagents.

200 Highest Awards: Gold Medals from all the Principal Exhibitions.

## **PURE ICHTHEMIC GUANO.**

**The Most Reliable, The Richest Food, and the Most Natural Fertiliser**

Supplied in Tins and Bags, 6d. to 20/. Carriage paid on quantities of 28-lbs. and upwards.

### **FAME'S FERTILISER.**

**Swift, Safe, and Sure.**

Supplied in Tins and Bags, 6d. to 20/. Carriage paid on quantities of 28-lbs. and upwards.

May be obtained from the principal Nurserymen, Seedsmen, Florists and Chemists, or DIRECT OF—

The Sole Proprietors and Manufacturers,

**WM. COLCHESTER & CO.,**

**IPSWICH, England.**



# **TAIT'S**

## **GARDEN SEEDS**

**ARE THE BEST.**

**Carriage Paid.**

**Selected Vegetable Seeds.**

**Choicest Flower Seeds.**

**Imported Seed Potatoes.**

**Every Requisite for the Garden.**

Call or write for Tait's Annual List, post free.

## **W. TAIT & CO.,**

**Seed Merchants,**

**119 & 120 Capel St., DUBLIN**

## **JOHN FALCONER,**

**LITHOGRAPHERS, PRINTERS,  
BOOKBINDERS, PUBLISHERS,  
AND STATIONERS,**

**B**EG respectfully to draw the attention of Advertisers to their special facility for producing in first-class style, and at a reasonable cost, Seedmen's and Nurserymen's Catalogues, illustrated either in black or by the three-colour process; Price Lists, Attractive Folders for inserting in Magazines, &c., &c. All work entrusted to our care is executed by skilled and competent workmen, and the resources of our Establishment, both in suggestion and first-class material, are at their command.

**ESTIMATES FREE ON APPLICATION.**

### **Specialities:**

**MUSIC PRINTING IN BOTH NOTATIONS, AND WORKS  
IN THE IRISH LANGUAGE.**

**. . 53 UPPER SACKVILLE STREET, DUBLIN . .**

**When Planting** 

**FOREST, FRUIT,**

OR

**ORNAMENTAL TREES,  
THORN QUICKS.**

AND

**HEDGING PLANTS,**

WRITE . . .

**WM. POWER & Co.,**  
Nurserymen,  
**WATERFORD.**

---

ILLUSTRATED NURSERY CATALOGUE POST FREE.

---

Over 600,000 Forest Trees were exported from our  
Nurseries last Season to England, Scotland, and Wales.

MARCH 1908.

TWOPENCE.

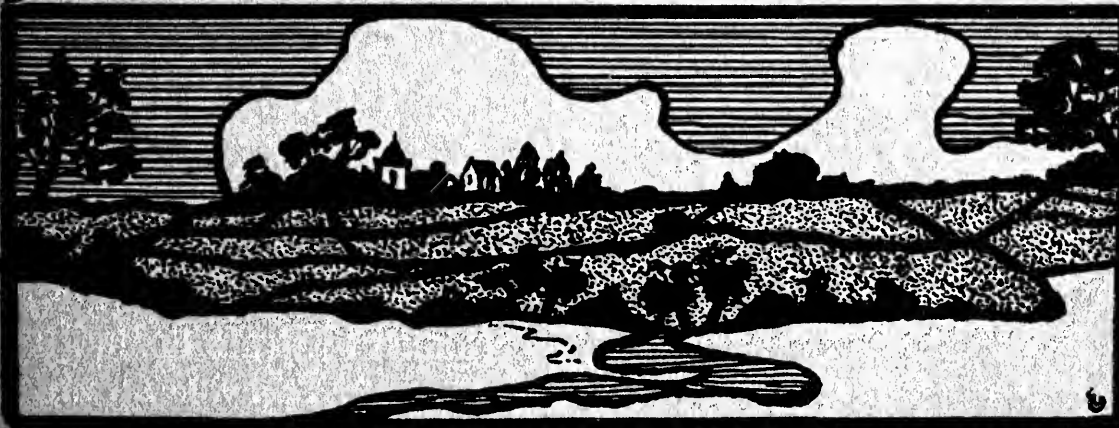
# Irish Gardening

## Contents

	PAGE		PAGE
The Mock Oranges . . . . .	33	Delphiniums . . . . .	41
Cinerarias . . . . .	34	Notes and Abstracts . . . . .	42
Mushroom Culture . . . . .	34	Current Topics . . . . .	42
Brussels Sprouts . . . . .	36	The Reader . . . . .	43
Notes from Glasnevin . . . . .	37	Seed Sowing in Pots . . . . .	43
Clematis . . . . .	37	The School Garden . . . . .	44
The Snowdrop . . . . .	38	The Maidenhair Fern . . . . .	44
Roses . . . . .	38	The Month's Work . . . . .	45
The Herbaceous Border . . . . .	39	Onion Growing . . . . .	47
A Garden at Lissadell . . . . .	39	Bee-keeping . . . . .	48
The Garden in Spring . . . . .	40	Answers to Correspondents . . . . .	48

### DUBLIN

PRINTED AND PUBLISHED BY JOHN FALCONER, 55 UPPER SACKVILLE STREET.  
OBTAINABLE AT RAILWAY BOOKSTALLS AND FROM NEWAGENTS THROUGHOUT IRELAND.  
WHOLESALE AGENTS: MESSRS. EASON & SON, DUBLIN & BELFAST;  
GEORGE VICKERS, ANGEL COURT, STRAND, LONDON.



## WINDOW GLASS.

Polished Plate for Shop Windows.

Ornamental Glass of all Descriptions.

Horticultural Glass at Lowest Rates.

## DEATH TO THE WEEDS.

HOYTE'S WEED KILLER.

*Strongly Recommended for the Destruction of Weeds, &c.*

Price, 2s. per gallon; 5 gallons, 1s. 6d. per gallon; 10 gallons, 1s. 3d. per gallon; Original 40-gallon casks, 1s. per gallon.

**HOYTE & SON**, The City of Dublin Drug Hall,  
17 LOWER SACKVILLE STREET, DUBLIN.

## POTASH MANURES.

**ALL CROPS REQUIRE POTASH.—**

Especially Potatoes, Roots, Flax, Grass, Clovers, Peas, Beans and Onions.

The best way to supply Potash for Crops is to apply Kainit in Winter or Muriate of Potash, or Sulphate of Potash, in Spring or at seed time to the Soil.

Leaflets and Pamphlets may be had on application to

**GEORGE RICE**, MANAGER . . .  
AGRICULTURAL OFFICES,  
15 Parliament Street, and  
50 Essex Street, DUBLIN.

Potash Manures may be had from all Manure Dealers.

All Original Illustration Blocks in  
"Irish Gardening" are executed by

. . . THE . . .

**Irish Photo-Engraving Co.**



Samples and Prices  
for every kind of  
Illustrative Work  
upon application.

Oriel House, Westland Row, DUBLIN.

## NOTICE



### READERS

wishing to bind Vol. II. may receive copy of Title-page and Index by applying to the Publishers.

"Has stood the test of a quarter of a century."

# THOMSON'S

Vine, Plant, and Vegetable

# MANURE.

Only Medal,  
Edinburgh, 1886.



Gold Medal,  
Edinburgh, 1891.

The result of long Practical Experience. Unrivalled for all Purposes. This valuable Manure is yearly growing in public favour.

ALSO

**THOMSON'S SPECIAL  
CHRYSANTHEMUM MANURE.**

Perfect Plant Foods.

SOLD BY ALL SEEDSMEN.

Price Lists and Testimonials on application to  
SOLE MAKERS—

**WM. THOMSON & SONS, LTD.,**  
Tweed Vineyard,  
CLOVENFORDS, GALASHIELS, N.B.

## "A True Plant Food."

GIVES IMMENSE INCREASE IN CORN, ROOT,  
GRASS, FLAX, AND GARDEN CROPS . . .

The ONLY form of NITROGEN that feeds the  
Crop immediately it is applied.

# NITRATE . . . OF SODA

Can be bought of all Leading Dealers  
in Manures.

Pamphlets and information Free on application to  
JOHN SIMPSON, at the Irish Office of the

**Permanent Nitrate Committee,**  
15 Lower Sackville Street,  
DUBLIN.

# IRISH GARDENING



A Monthly Educational Journal devoted to  
the Advancement of Horticulture in Ireland



## The Mock Oranges (Philadelphus).

By W. J. BESANT, Royal Botanic Gardens, Glasnevin.

**B**OTANICALLY classed with the Saxifragaceæ, the subjects under notice would seem, to the casual observer, to have little affinity with the saxifragas of our rock gardens. An examination of the flowers, however, shows a close relationship, in the essential organs, with those of the typical genus.

Very few shrubs will better reward the cultivator, and though not exacting as to soil requirements, a good rich loam should be provided at planting time. If given a fair start, most of the species and varieties will grow vigorously for many years; indeed, the tall growers should be given plenty of space at the outset, and planted either at the back of wide shrubberies, where they will not overgrow less robust plants, or as isolated specimens on the confines of a lawn, where they will form objects of considerable beauty.

Pruning should be strictly attended to if the best results are to be had. Immediately after flowering, the plants should be thinned out, removing all weak or useless sprays, and cutting back the stronger leading shoots to within a few buds of the base. If it is desired to have the plants a certain height for some purpose, of course the strong shoots may be left rather longer until the desired height is reached, when they can be cut back annually. The foregoing remarks refer more particularly to the tall-growing forms of *Philadelphus*. The dwarfer sorts

are eminently suitable for bays in the front of the shrubbery or for beds on the lawn. The treatment is much the same for both sections, but these dwarfer sorts seem to become more quickly exhausted than the tall forms.

For some years they will produce plenty of strong-flowering shoots and blossom profusely, but ultimately incline to a twiggy kind of growth which is less floriferous. This need be no detriment, however, as propagation by means of short, half-ripened shoots is very easy. These, if inserted in sandy soil and given a little heat, root in a few weeks; even a hand-light without heat is sufficient if the cuttings are firm and taken from the parent branch with a very slight "heel." When rooted they may be potted off into small pots, and placed in a cold frame until spring, when, if planted out in nursery beds, they will soon form bushy little plants.

Most of the species and varieties are sweetly scented, and out of doors this is very enjoyable, but in a room the scent becomes sickly. Of the stronger forms *Philadelphus gordonianus* and *P. inodorus*

are scentless, but otherwise make admirable specimens. Other fine species are—*P. coronarius*, a S. Europe plant, and, perhaps, the best known in gardens; *P. grandiflorus*, from the S. United States, and its varieties *floribundus* and *laxus*; *P. Lewisii*, from N. W. America; and *P. Satsumi* from Japan. Of the dwarfer forms *P. Lemoinei* is desirable;



*Philadelphus Pearle Blanche.*

From a Photograph by courtesy of Messrs. Pennell and Sons, Lincoln.

this is of garden origin originating from *microphyllus* x *coronarius*. It is an excellent form for beds, and has given rise to several desirable varieties, notably erectus and maculatus, the latter having a reddish blotch at the base of the petals. *Philadelphus microphyllus*, from Colorado, is a neat and pretty species with slender shoots and tiny leaves, and is not to be confounded with a hybrid form often found labelled *microphyllus*. All the species bear white flowers, or, in some cases very pale yellow.



### Cineraria Radiata Hybrida.

THIS new cineraria is of the stellata strain, but the flowers are much larger, and of the most beautiful shades of colour imaginable. They are star-shaped, some of the petals being twisted. They are indispensable as cut flowers for table decoration. They may be had in flower from January to June by sowing the seed in the third week of April. Their cultivation is very simple. Get a six-inch pot and put a few pieces of broken crocks in the bottom for drainage. On the top of these place some moss to keep the mould from stopping up the drainage. Fill up the pot to within an inch of the top with a compost made of three parts of good loam and one part of leaf-mould. Give a good watering with a fine rose watering-pot, and let stand to drain for about half an hour; then sow the seeds thinly, and cover very lightly. Place the pot in a cool house or frame, and cover with a sheet of brown paper damped slightly. When the seedlings appear remove the paper, but keep shaded from strong sun. In a few weeks prick off the young plants into boxes, inserting them three inches apart. As soon as the leaves touch each other pot off into four-inch pots, and stand them in a cool frame on coal ashes. After a few days give plenty of air to the frame, and shade plants from strong sunlight. In a few weeks, when the pots are filled with roots, but not pot-bound, give them their final shift into six-inch pots, which are quite large enough for ordinary purposes. The compost in which I find they do best consists of three parts maiden loam of a fibrous, sandy nature and one part of leaf-mould, with a six-inch potful of crushed bones added to it. About the first of October bring the plants into a house where the temperature ranges from 45 degrees F. at night to 50 or 55 degrees F. during the day. Great care must be taken in watering them for the next few months, as an overdose of water will cause them to rot off at the neck. A little guano water from the first of January on will greatly improve them.

J. DEVINE, Kilworth.



THE falling waters led me,  
The foodful waters fed me,  
And brought me to the lowest land,  
Unerring to the ocean sand.  
The moss upon the forest bank  
Was pole-star when the night was dark,  
The purple berries in the wood  
Supplied me necessary food;  
For Nature ever faithful is  
To such as trust her faithfulness.



It is the farmer's part to create. He stands close to Nature. He is the continuous benefactor. He has grave trusts confided to him. In the great household of Nature he stands at the door of the bread-room, and weighs to each his loaf.—Emerson.

## Mushroom Culture.

By THOMAS SCOTT, County Horticultural Instructor, Co. Down.

IT is surprising how many could who do not grow mushrooms. Almost everyone enjoys them as an article of diet, yet the great majority of people depends upon natural sources for their supply. Some years, for six weeks or so, Nature is extremely liberal, while in other years she is just as niggardly. Why not raise them artificially, and have mushrooms nearly all the year round? French cooks say that cultivated mushrooms are twice as nutritive as those naturally grown, and are equal to fresh meat as a food, and much more digestible; besides, as a marketable commodity they are very profitable. In France mushroom culture is a large and profitable business, and why not in this country? We have quite as good facilities, and yet three-fourths of the cultivated mushrooms consumed in the United Kingdom are French-grown.

Now that "new industries" is the cry of the day, here is one requiring little capital, and on which there is a return of money invested in two months. Those who have suitable places, a command of reasonably cheap material, and brains to take advantage of these conditions, may take up the industry with a sure prospect of success.

**CULTIVATION.**—Horse "droppings" from sound, well-fed horses is the material required. In all country places this can be readily procured, while near large towns it can be bought cheaply. One thing which must not be used in mushroom growing is the droppings from horses which have been dosed with medicine, as even one dose of medicine may be sufficient to kill the mushroom spawn of an entire bed. There is a very general but erroneous opinion that mushrooms are difficult to cultivate; they are no more difficult than any other crop, but their requirements differ very materially from that of other crops. The best time to start their cultivation in beds, indoors, is September, although beds may be made in August, and have good results. Beds put down after April should be outdoors. When they are plentiful in the meadows it does not perhaps pay to grow them artificially, but they can be grown all the year round. From August to March they are more easily grown indoors; from March to August it is better to grow them outdoors. Indoors they may be cultivated in stables, barns, cellars, underground passages, or under stages in plant houses; they can also be grown in boxes or pots. Darkness is an advantage, but not absolutely essential.

**TEMPERATURE.**—A proper temperature is of the utmost importance. The heat of the bed should not fall below 55 degrees F. or rise above 70 degrees F. During the bearing period in specially constructed mushroom houses, or heated sheds, the temperature is easily regulated, but in such outdoor places as already mentioned the proper temperature can be maintained by judicious covering, provided the bed has been properly constructed.

**MATERIAL.**—Select the droppings of horses well fed on firm food, reject those from grass-fed and, let us repeat, especially reject from any receiving medicine; add to the droppings one part in three of short, strawy manure. This mixture should be thrown together in narrow ridges, about five feet wide and four feet high; these ridges should



be turned every second or third day for about a fortnight. This will encourage uniform fermentation and allow the rank-smelling gases to escape; afterwards, when pressed firmly together in beds or boxes, the material will heat mildly, and retain its heat for a long time. It is not absolutely necessary for success, but in practice I have found by mixing with the prepared material before making it up about one-fourth of its bulk of fibrous loam, the beds yielded more and better mushrooms, and continued in bearing longer.

**FORMATION OF BEDS.**—Select a firm, dry floor in unheated structures; ram the material firmly together to a depth of from 16 to 24 inches. The colder the position the deeper the bed should be. Mid-winter beds require to be deeper than autumn and spring beds. In heated structures 12 to 18 inches will be quite deep enough. If the material is rammed thoroughly firm, the temperature of the bed will not rise much over 90 degrees F. in four or five days. When the temperature has fallen to about 80 or 85 degrees the beds may be spawned.

**SPAWNING.**—Good spawn is absolutely necessary. Spawn is sold in bricks, 16 to the bushel, and can be purchased from reliable firms for from 5s. to 6s. per bushel. Break the spawn into pieces about the size of a hen's egg, and insert these all over the bed, about 3 inches deep and 6 inches apart; then fill up the holes and level the bed. If there is no danger of the heat of the bed rising, it may now be soiled over. A safer plan, however, is to cover the bed with hay or straw matter for a few days; if the heat rises the hay can be removed, if it does not it is safe to soil the bed.

**SOILING** consists of covering the whole surface of the bed about one inch deep, preferably with fresh, fibrous loam, but any ordinary soil will do if the loam is not to be had. Make it quite firm and the surface level; then lightly water the surface, and smooth with the back of a spade so as to seal the surface of the bed. When the temperature falls to 70 degrees cover with long litter or other material; do not let the bed at any time fall below 55 degrees F. Mushrooms should show in about six weeks, and continue to come for about two months. The abundance of the crop, and the length of time of bearing will depend upon the three factors—well prepared material, good spawn, and even temperature.

**WATERING.**—Conserve all the moisture possible in the bed; the less watering required the better; however, the bed must not be allowed to get over dry. When watering must be done, use it as a means of heating the bed and of stimulating the mycelium of the fungus. Water through the covering and not directly on the bare surface of the bed. The water may be given at a temperature of 90 degrees. As a stimulant nothing surpasses the urine from dry-fed horses, diluted with twelve times its bulk of water, adding to each gallon of this one ounce of common salt. Where urine is not available

sulphate of ammonia may be given at the rate of one ounce to the gallon of water.

**OUTDOOR CULTIVATION.**—Prepare material as for indoor culture; make up into ridges, which, when thoroughly rammed, should be at least 30 inches wide at bottom, 30 inches high and 6 inches wide at top. Follow out directions as already given for spawning and soiling. Cover thoroughly with long litter; put over this mats or other material that will throw off the rain and tend to keep in heat and moisture. A common practice in gardens where melons and cucumbers are grown is, early in August, to insert spawn about 5 inches deep in the melon and cucumber beds; when the melons and cucumbers are over large quantities can be gathered off the beds.

**GATHERING THE MUSHROOMS** may seem a simple process, but like most things there is a right and wrong way of doing it. They should be gathered clean off the surface, not cut; cutting leaves the stumps to rot, the rotteness spreads to the mycelium and prevents further growth of mushrooms. The art of gathering consists in removing the mushroom with the least possible disturbance to the mycelium and younger mushrooms. In gathering, if a hollow or hole is left in the bed, press in firmly a little sweet, fibrous loam; this will induce the mycelium to run more freely.

[NOTE.—The mycelium of a fungus is the delicate thread-like growth that develops from the "spawn" and remains under ground. The threads are massed closely together, forming slender interlacing cords of a whitish colour. It represents the feeding organ of the body of the fungus, and from it in due course the

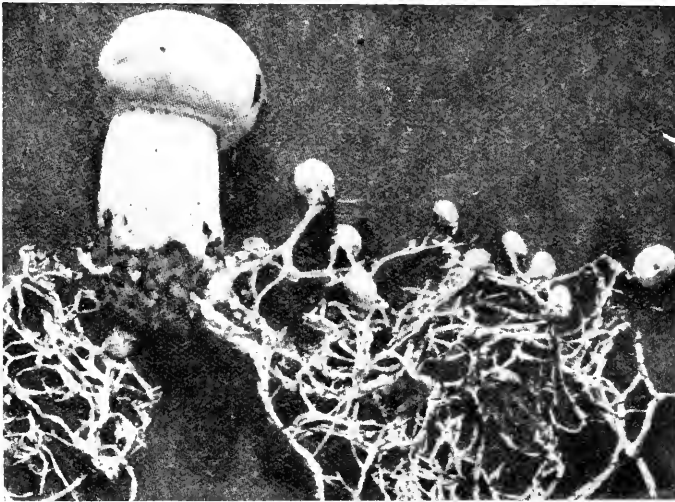


Illustration showing the complete Mushroom Plant. The soil has been carefully washed away, so as to display the mass of underground mycelia and the edible "mushrooms" in different stages of development. (After Atkinson.)

tiny pimples arise that gradually develop into the "button" stage of the "mushroom." This mycelium may be used—indeed is used—to propagate mushrooms. Just as fragments of the underground runners of twitch grass or convolvulus can give rise to new plants, so can the mycelium produce new crops of the fungus. The mycelium may be dried (as in the manufacture of the commercial "bricks") and still retain its vitality for some time. The bricks are formed of the mycelia and the organic soil in which they were grown for propagation purposes.—ED. I. G.]

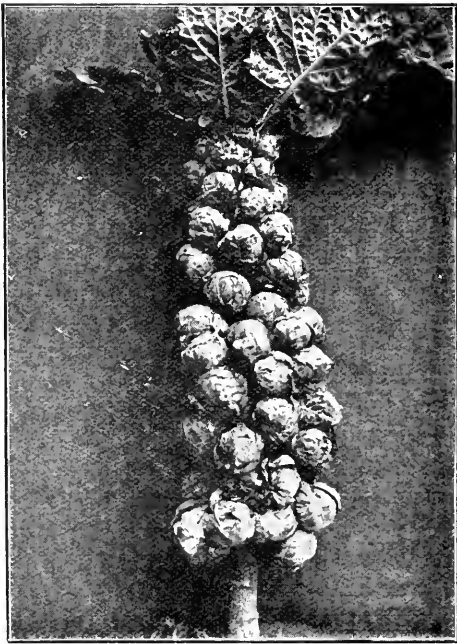


**NOTE ON PREPARATION OF MUSHROOMS FOR TABLE.**—One of the best methods is to stew them in milk. For each half-pound of mushrooms use 1 oz. of butter, 1 oz. of flour, and half a pint of milk, together with pepper, salt, cayenne, and a few drops of lemon juice. Then melt the butter in a stewpan, stir in the flour, add the milk, salt, pepper, cayenne, and lemon juice; skin and remove the stems from the mushrooms, and drop them into the sauce. Let the whole stew gently until the mushrooms are tender. Remove every particle of butter which may be floating on the top before serving.—E. D. L.

## Brussels Sprouts.

By WILLIAM JOHNSTON, Instructor in Horticulture, Co. Longford

THERE is none of the cabbage (*Brassica*) tribe to my mind of so much importance as that of Brussels Sprouts. When well grown the quantity of eatable material produced exceeds that of borecole or kale, while there is less actual waste from Brussels Sprouts than is to be had from any other variety of cabbage tribe. It is a great mistake that this vegetable is not met with more frequently in the gardens of the cottagers and small farmers. Perhaps some of these people have the mistaken idea that it is out of their reach to grow this crop,



A Stem of Brussels Sprouts.

but its culture is just as easy and as simple as the crop mostly seen growing in the gardens of the above-named classes—viz., that of *borecole* or *kale*. The following few hints as to the management of this useful winter vegetable might be of profit to some of the cottagers who take an interest in gardening that I give them, not altogether for their intrinsic value, but that those for whom this article is penned might avail themselves of adding another useful vegetable to the number already grown, and so have better vegetables for their home supply than heretofore.

**SOIL MOST SUITABLE.**—The soil intended for seed and nursery beds of Brussels Sprouts should be light and fairly rich, while the ground intended for their cultivation ought, if possible, to be of rich loam, but they will

succeed in any ordinary garden soil having an open situation. Some people recommend deeply-trenched and liberally-manured soil as the most suitable, but this tends to the production of large, loose sprouts instead of fairly-sized, close, firm ones, which are produced on soil of average fertility.

**MANURING.**—Brussels Sprouts, like all green-leaf plants, are rather exhaustive of nitrogenous elements in the soil, therefore it is essential to give a dressing of somewhat fresh manure to counterbalance the loss of this food taken from the soil.

**SOWING OF SEED.**—It is better to make three small sowings—viz., (1) early in March, (2) beginning and (3) end of April—than to sow all the seed at once. Plants resulting from these sowings will keep up a good succession for supply during the winter and spring. The seed is best sown in shallow drills from six to twelve inches apart, and covered with about half an inch of fine soil. After the seed is thus covered the ground should be raked and beaten with the back of a spade so as to compress the soil and seed. Having completed the foregoing operations it is better to net the beds, by supporting a piece of garden netting on a few forked sticks so as to protect the seed from the ravages of birds. The yield of the crop largely depends on the strain of seed used.

**TREATMENT OF SEEDLING PLANTS.**—When plants are large enough to handle, and before becoming too crowded in seed beds, they should be pricked out into nursery beds in rows about six inches apart and the plants about same distance asunder in rows, letting the plants down to the bottom leaves in the ground and making the soil firm about the roots. This operation should be performed in showery weather, but if not, the plants should be well watered so as to settle the soil about the roots. It is a great mistake to allow the young plants to remain too long in the seed beds, as they are liable to become long-legged or “drawn.”

**TRANSPLANTING.**—Place out the young plants into their permanent quarters before they become too crowded in nursery beds, placing them two feet asunder every way, letting the plants down to the bottom leaves in the holes made for them with the dibbler. It is better to give them a good watering after planting, so as to obviate a check on their growth, if weather is not suitable. Before planting, especially in dry weather, the roots should be dipped in a “puddle,” made of clay, sufficiently thick to adhere to the roots, and into which a small quantity of fresh soot has been stirred. The application of fresh soot will save the roots from the attacks of grubs, which are rather troublesome in some gardens. One thing necessary in the planting of Brussels Sprouts is that the soil about the roots must be firm.

**AFTER CULTIVATION.**—Draw up a little earth to the plants when they are from eight to nine inches high; keep them always free from weeds, and save the soil-moisture by repeated hoeings. The side leaves should not be removed while green, as it is at the base of these leaves on the stems of the plants that the sprouts are formed, and when these enlarge the said leaves become yellow, and finally drop off after having performed their proper functions. The tops or heads should not be cut off, as is often done, until the close of the season and after the side sprouts are nearly exhausted. Up to that time they serve to protect the stems from the effects of frost, besides helping to maintain growth.

**VARIETIES MOST SUITABLE TO GROW.**—The following four varieties are about the best for the cottager to grow, as they yield a large return of sprouts, and besides are hardy and require very little care:—

*Mackey's Selected Giant.*—One of the best, being large, very firm, and of delicious flavour.

*President Carnot.*—A large variety.

*Aigburth.*—One of the earliest, very hardy.

*Scrymger's Giant.*—Fine variety, sprouts compact, flavour good, grows to a large size.



## Notes from Glasnevin.

THE months of January and February are usually considered dull and uninteresting in a garden, but on referring to the list given below it will be seen that this is not necessary, and that it lies with the gardener, be he professional or amateur, to have it so or not; also, the list given of plants are not those of merely botanical interest, the majority of them are "every man's" flower. In January we have *Narcissus minimus*, the smallest daffodil (see note in IRISH GARDENING, April, 1906, p. 39); *Iris Vartani*, a very pretty bulbous iris, with pale lilac blue flowers and deep purple markings; *Iris Tauri* (see same note); *Iris stylosa* and *Iris stylosa alba*. These latter two are excellent subjects for indoor decoration if picked in the bud. *Adonis amurensis*, a very pleasing little member of the *Ranunculus* family, with yellow flowers and delicate, soft foliage, a native of Manchuria and Japan, where it is said some varieties are reddish.

Among the shrubs we have *Garrya elliptica*, an evergreen with rich green leaves and very graceful, creamy catkins. A plant of *Garrya elliptica*, when in good bloom, is a very beautiful sight, and will well repay a little extra care and attention. The large bed of *Daphne blagayana* outside the Orchid House at Glasnevin is well known by visitors to these gardens, and, like so many of this genus, its perfume is delicious. The following treatment after flowering has been found to answer well:—Take the young growths and place under and over their bare stems some good loam, and on this place a stone sufficiently heavy to keep the springy shoot in its place. At first your plant will look as if it had met with rather drastic treatment, but the shoots will soon pick up, and before very long hide most of the stones. *Daphne blagayana* can be propagated by means of cuttings, and on its own roots does best.

*Hamamelis arborea*, the Mansak of Japan. This is a deciduous shrub, blossoming before the leaves develop in January and February, every branch being covered with bunches of yellow flowers with curious twisted petals. *H. mollis* has hooked petals, and blooms about the same time.

*Iris Danfordiæ*, of the bulbous section—a very pretty, clear yellow iris about four inches high, with green markings. This should be in all collections of these early flowering varieties.

The following are in bloom in the open now (February 12th):—

SHRUBS AND TREES.—*Jasminum nudiflorum* (yellow jasminum), *Erica carnea alba*, *E. carnea*, *Garrya elliptica*, *Chimonanthus fragrans*, *Hamamelis mollis*, *H. arborea*, *Lonicera Standishii*, *L. fragrantissima*, *Alnus Americana*, *Rhododendron parviflorum*, *R. davuricum*, *Coriaria nepalense*, *Cydonia japonica*, *Lithospermum rosmarinifolium*, *Polygala chamæbuxus*, *Daphne blagayana*, *D. mezereum album*, *Cornus officinalis*, *Ulex europæus* (gorse-furze), *Nuttallia cerasiformis*, *Azara microphylla*.

HERBACEOUS, BULBOUS, &c.—*Saxifraga rocheliana*, *S. Boydii alba*, *S. apiculata*, *S. sancta*, *S. coriophylla*, *S. oppositifolia*, *S. cordifolia*, *Iris reticulata* var. *Krelagei*, *I. reticulata*, *I. stylosa*, *I. s. alba*, *I. Dandfordiæ*, *I. Tauri*, *Anemone blanda*, *Colchicum hydrophyllum*, *Crocus Fleisheri*, *C. reticulata*, *C. etruscus*, *C. Tomasinianus purpureus*, *C. Tomasinianus*, *C. vernus* (yellow), *Eranthis hyemalis* (winter aconite), *E. cilicicus*, *Galanthus* (snowdrop), *Elwesii*, *G. cilicicus*, *Adonis amurensis*, *Omphalodes verna*, *Petasites lobata*, *Scilla bifolia*, *Pulmonaria grandiflora*, *Arabis albida*, *Hellebores* (Christmas roses), and *Primroses*.

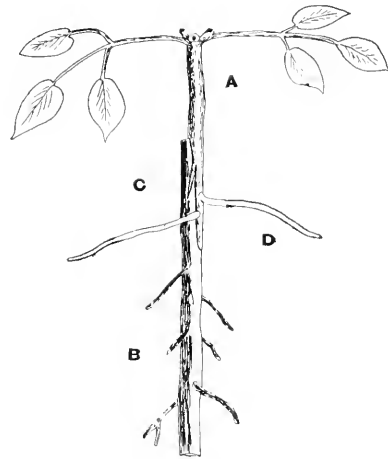
R. M. POLLOCK.

The law of Nature is *do the thing and you shall have the power*; but they who *do not* the thing have not the power.—*Emerson*.

## Clematis.

IN regard to the very interesting article in IRISH GARDENING on these handsome plants, I wonder if that figment about grafted plants *versus* plants on their own roots will ever be got rid of. As a fact, every grafted clematis quickly becomes an own-root plant.

You take a piece of clematis root, say of *viticella*, and graft it; the stock—*i.e.*, bit of root—only serves as a means to an end; just attaches itself and does no more. In fact it is nothing else but an easy way to strike clematis, for that is what it really amounts to. Immediately the scion has become united to the stock it begins to emit roots from its base; and if



Sketch showing how, when a Clematis shoot is grafted upon a root, the old root branches on the stock die so soon as new roots spring from the scion. A—Scion. B—Stock. C—Graft Junction. D—New Root.

you knock the plant out of its pot or dig it up long after, you will find that the stock is just as it was when the grafting was done.

The accompanying rough sketch, made from an actual nursery specimen, will make the matter quite clear to any interested reader.

If the planter will only select positions where the stems of the plants are protected from sunshine, there will be fewer deaths. These scandent kinds always, in a state of nature, grow amongst scrub, up through which they thread themselves, developing their leaves and flowers on the top. So their own stems are always in the shade.

As a rule, when a clematis dies it is at the end of a hot summer's day, and is caused by the ascending sap (on its way up the stem) to replace the wastage of water in the foliage), being much over-heated owing to its unnatural exposure to full sunshine.

Daisy Hill Nurseries.

T. SMITH.

## The Snowdrop (*Galanthus*).



Snowdrops on a Lawn,  
Albert Agricultural College,  
Glasnevin.

PERHAPS because of its earliness, as well as by its extreme prettiness of habit and purity of colour, the poet's "chaste snowdrop, venturesome harbinger of spring," holds first rank in our affections. It does not even wait until spring, but, as becomes a "child of winter," pushes its welcome milk-white flowers from the earth any time from Christmas to March. It is naturalised in meadows and copses everywhere throughout the British Isles, and is planted in hundreds of thousands every year by its admirers. The bulbs are extremely cheap, and no finer early spring effect can be obtained than by planting them in numbers in grass land or in association with crocuses, winter aconites, or other spring-flowering plants in our beds and borders. They grow well in any good, ordinary soil, and after planting require no attention. The generic name of the snowdrop is *Galanthus*, and there are several species and varieties in cultivation.



## Roses. By O'DONEL BROWNE, M.D.

THIS, the latest of all books<sup>1</sup> sent out on Roses, will come as a welcome addition to every rose-grower's library. Coming from the pen of one so skilled in rose growing, for Mr. Pemberton ranks second among England's amateurs, one naturally expects to find the book teeming with "tips," and truth to tell there are plenty of hints given in the book which are well worth laying to heart. For, as he tells us himself, that for the last thirty-three years he has not missed one London show, it must be clear to everyone that he has gleaned a useful store of knowledge from those visits alone.

The book itself is divided into two portions. Part I. contains a chapter on the Rose, the Flower of England, in which the history of the rose is clearly laid forth, going back as far as the time of the Romans, and gradually traced up to its first entry to England. In this chapter it is shown how highly the rose is favoured, and how, as the "Golden Rose" of his Holiness the Pope, it is the flower designated to mean the emblem of mortality of the body, the metal the immortality of the soul. Chapter II. treats wholly on the botany of the rose, which shows what a family tree this flower can boast of. Chapter III. gives a complete list of those wild roses that are found in the British Isles, and it is interesting to note that there is one belonging to Ireland. It was discovered near Belfast, and the finder, Mr. Templeton, was awarded a prize in Dublin by botanists. Chapter IV. deals with wild roses of other countries, and is useful in tracing the advance of new varieties. Rose-growers of years ago will find names of their childhood in Chapter V. under "Grandmother's Roses," but as rose-growing is advancing our grannies' pets are

disappearing. Chapter VI. gets us more on a level with the rose such as we know it, and deals with our now popular favourites in the garden, and in this chapter, under the heading of the Tea-scented Rose, will be found a most interesting and amusing account of how the T. Rose came to us from China. It is well worth reading.

Part II. is decidedly the most useful part of the work, dealing, as it does, with the art of growing roses. Soil and manure get plenty of space spent on them, as Mr. Pemberton has shown us that he has gone very fully into this subject. All kinds of artificial manures are treated, the author laying great importance on the right manure for the right soil, and condemning the use of one stock prescription for all soils. "As the strength of a chain lies in its weakest joint, so the minimum of any one essential ingredient (of the soil), not the maximum of the others, is the measure of the soil's fertility." Planting is next dealt with, the writer being much against wasting room in a rose garden. The chapter on Pruning is exceedingly clear—far clearer than in any other book we have seen—and yet not one superfluous word is put in. The diagrams on pruning are most useful, being done by Miss Pemberton. The various ways of propagating roses are fully gone into, but what we consider the best bit in the book is the chapter on Raising New Roses from Seed, or what nurserymen call "Pedigree Roses." This chapter has been corrected by the champion rose-raiser of the world. Anyone who reads this chapter will see how it is that our Irish rose firms charge so highly for their *novelties*, and rightly so, for they are, indeed, hard to get. Anyone can propagate a rose on the market, but few can put forth a new rose, such as we have coming from the north of Ireland every year. This chapter is, in our opinion, a grand one. Then last of all comes a treatise on showing or exhibiting—not merely cutting and putting flowers in a box "cocked up to be judged," as a person remarked in our hearing the other day, but tended from start to finish—from the foal-stage to the race-horse. It is here that Mr. Pemberton shines, as anyone will see if they attend a London rose show—exhibition or decorative—he is just as good at the one as the other class. We owe a great deal to Miss Pemberton for having shown us how to "tie up" a bud. Lastly,

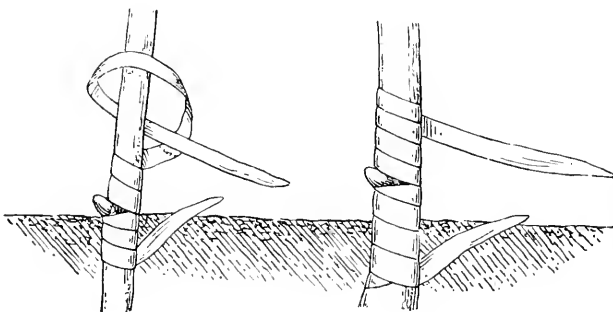


Diagram showing how to "tie up" a bud.

the whole book is well got up, well bound and printed—a bold, large print—but there is one great loss in this book, and that is the lack of plates and photos of roses. Were there but a few good photographs it would enhance the book greatly—but there, we must not look for too much. We told you that we were soon to hear of this book in a previous number of IRISH GARDENING. Well, the second biggest English lion has roared. Buy his worthy book and listen to him. It is a truly splendid book.

<sup>1</sup> ROSES: THEIR HISTORY, DEVELOPMENT AND CULTIVATION. By the Rev. J. H. Pemberton. Longmans. Price 10s. 6d.

# The Herbaceous Border.

By FRANK HUDSON.

**M**ARCH is by far the best month to plant or divide herbaceous plants, as the roots are then beginning to get active; therefore, after being placed in their fresh quarters, they will get quickly established. In dividing herbaceous plants always retain the outside portions, as they are the youngest parts, and make the finest plants.

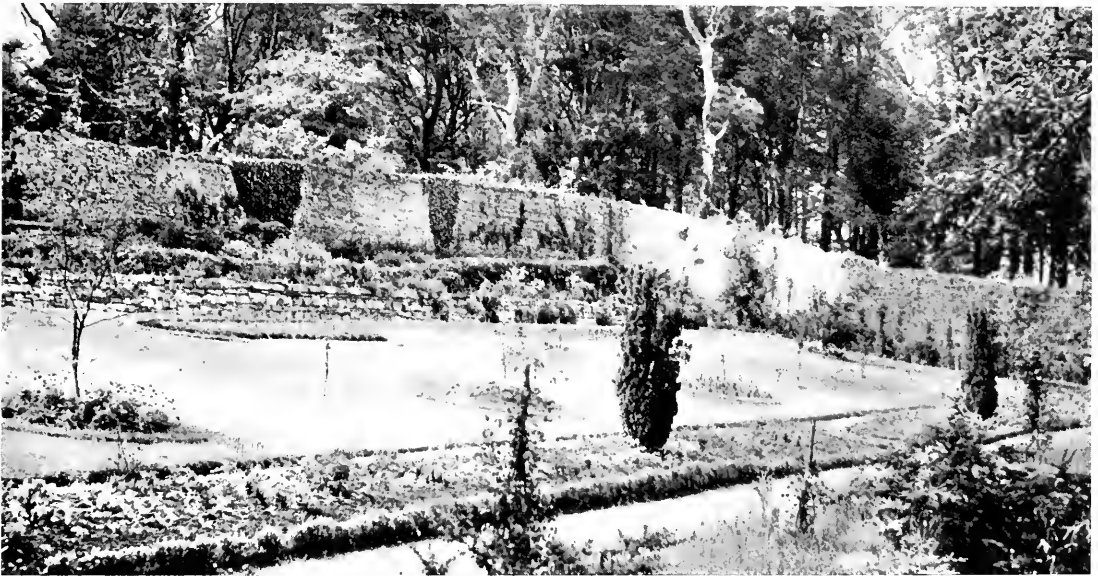
By dividing phlox, delphiniums, Michaelmas daisies, and most herbaceous varieties, you greatly improve their vigour, while the stems and individual blooms are increased in strength and size. The best time to select for this work is

planting select the tallest plants, and place them in the back row; never put plants of the same height close together. Start with a plant of say five feet in height, then place a plant six inches shorter next to it, and plant the full row or line in this method at intervals; plant good, bold specimens such as delphiniums; the next line should be planted with shorter stemmed plants. Continue in this way until you come to the front row, which should be intermixed with alpine plants and others having a dwarf habit.



## A Garden at Lissadell.

THE accompanying photograph represents a view in the flower garden at Lissadell, the Sligo seat of Sir J.



A Corner in a Garden at Lissadell.

when the young shoots have pushed through the soil to a height of about two inches. Any misplaced plants in the border should now be lifted and placed in more suitable positions. March is the best month to order plants for the border. We have now several nurserymen devoting particular attention to these most popular of all plants. The intending purchaser should write for catalogues, which, as a rule, give a lot of information as to height, colour, month in flower, &c. Such a catalogue will be a good guide to go by when planting. In many cases plants may grow taller or shorter than the catalogues state, as the nature of the soil has, of course, considerable influence upon growth. Plants that differ in either way from the average can be marked, and lifted the following season. No matter how careful the planter is there will have to be some alterations made the following season as a rule. When

Gore-Booth, Bart. This garden, which covers something more than two acres, is situated quite close to the sea, and is therefore very free from frost. The part shown in the picture was laid out in the winter of 1905-6. It is planted with many rare hardy plants, and contains groups of *Meconopsis cambrica*, fl. pl., *Astilbe davidii*, *Romneya coulteri*, *Buddleia variabilis Veitchii*, *Magnolia Lennii*, *Rehmannia angulata*, &c., with single plants of Winchester roses between the beds. The retaining wall is planted with such fine alpenes as *Campanula elatines*, *C. garganica*, *C. garganica hirsuta* and *Alba*, aubretias in great variety, *Erinus alpinus*, *Alyssum saxatile* in variety, &c.

A rockery was made at the far end last year for the cultivation of choicer Alpines, and in it are found growing luxuriously *Androsace lanuginosa*, *A. carnea*, *A. sarmin-tosa*, *A. coronopifolia*, a good collection of campanulas, saxifragas, *Meconopsis waltchii*, *M. integrifolia*, &c.

In the *Estate Magazine* for January last, Mr. F. H. Purchas has an interesting article entitled "Some Interesting Irish Experiments on Sir Josslyn Gore-Booth's Lissadell Estate," in which (among other matters) the story is told of the origin and development of the bulb-growing industry established at this picturesque western corner of Ireland.

## "IRISH GARDENING."

AN ILLUSTRATED MONTHLY.

OFFICES—53 UPPER SACKVILLE STREET, DUBLIN.

**Publishing Date.**—First day of each month.

**Subscription.**—3/- per annum, post free.

**Editorial.**—All Editorial Communications, copy, and photographs should be addressed to "The Editor."

**Business Communications.**—All letters regarding Subscriptions, Advertisements, and other business matters must be addressed to "The Manager."

**Wholesale Agents.**—Newsagents will please send their orders for Copies to either Messrs. Eason & Sons, Dublin and Belfast; Messrs. M. H. Gill & Son, Dublin; Messrs. Robb & Co., Belfast; or Messrs. News Bros., Cork.

**London Agent.**—Mr. G. Vickers, Angel Court, Strand, London.

**Remittances.**—Postal orders, cheques, &c., should be crossed and made payable to The Manager, "Irish Gardening."

## The Garden in Spring.

ACCORDING to the calendar the sun in its apparent circuit of the heavens enters the constellation of Aries on the 21st of March, and spring begins; but already the signs of a new season's course of growth is apparent in the garden by the swelling of buds and the pushing through of young spears of active shoots in our herbaceous borders. As the month advances, and fresh revelations succeed one another in quick succession, the lover of plant life will have abundant material for study and æsthetic delight for many long days to come. But one wonders if the ordinary amateur in gardening ever reflects that the glorious spring and summer display of flowers among our herbaceous perennials is the result of long periods of wondrous growth and structural evolution in the hidden darkness of the moist earth? Under the protective covering of the soil the clustering buds on imbedded rootstocks are successively formed and slowly and mysteriously evolved into leaf and flower, so that when the shoots appear above ground the most tedious and laborious part of the constructive work is over, and all that remains to carry the shoots into fulness of beauty is the simple task of inflating the tissue cells with water, and so inducing a rapid extension of "growth." This final act is, of course, performed by the roots so soon as the warm rains raise the temperature of the chilled soil sufficiently high to incite them to work. Poets frequently realise and aptly express in imaginative language the inner and less frequently observed workings of Nature, just as Westwood, in the following lines, gives beautiful expression to this growth and development of flower buds in the under-world:—

"The flowers below are in their tiring rooms

Fast busy, weaving, in those still retreats,

The robes of rainbow dyes, which they must wear,

When spring, fast running o'er the drowsy earth,

Taps at the closed portals of their homes,

And calls them forth, fresh perfumed and new-clad,  
To the festival of Nature."

The plant lover who is satisfied with being a mere spectator of the "festal" pageant of the flowers as they appear "fresh-perfumed and new clad," and fails to take an occasional peep into the weaving and robing rooms of his floral Beauties, loses much of the fascinating interest that a garden affords.



THE February number of *Blackwoods Magazine* contains an article on Mr. Walpole's interesting garden in County Wicklow from the pen of the Rev. H. Kingsmill Moore, D.D.

THE Country Gentlemen's Association of St. James' Street, London, issues a most useful Alphabetical List of all the principal works on Horticulture, Botany, and Forestry. It is supplied free to applicants.

A NEW and cheaper edition of Newsham's Horticultural Note Book has just been issued by Messrs. Crosby, Lockwood & Co. We have already, when reviewing the first edition, called attention to the merits of this useful little work.

THE Midland Counties Horticultural and Home Industries Association have issued a bulky prize schedule of their annual show to be held at Athlone on the 20th of August next. Copies can be had from the hon. secs., Rev. T. P. Hurley C.C., or Harold Smith, Athlone.

AT a meeting of the Horticultural Club, held on January 14th, Mr. E. A. Bunyard gave an interesting lecture on "Recent Advances in Plant Culture," in which he illustrated the immense advantage of the Mendelian principles in experimental work in hybridisation.

THE South Kildare Horticultural Society will hold a show of spring flowers at Athy on the 10th of next month. Particulars may be obtained from Miss Bagot or Mrs. Corcoran, hon. secretaries, Athy. The aim of the society is to encourage the cultivation of spring flowers within the area of its operations.

THE Limerick and Southern Counties Agricultural and Horticultural Society has issued its schedule of prizes for the spring and summer shows, to be held respectively on the 18th and 19th of April and 18th and 19th of July. Copies may be had from Major S. C. Hickman, D.L., hon. sec., Fenloe, Newmarket-on-Fergus, Co. Clare.

A daffodil and general spring show will be held at Athboy (Co. Meath) on April 21st in aid of the Royal National Hospital for Consumption in Co. Wicklow. There are over 50 classes, and liberal prizes are offered for Narcissi and other hardy and greenhouse flowers. Intending exhibitors should apply at once for prize list to the hon. sec., C. K. Douglas, or C. W. Parr, Parkstown, Ballivor, Co. Meath.

MR. WEND, forester on the Marquis of Bute's South Wales estates, speaking before the Bristol Gardeners' Association, said that to improve our woodlands oak and larch should be extensively planted. Growing thus in association, the rapid growing larch would tend to "draw up" the oaks and so secure the formation of good, straight timber. The speaker recommended the Japanese larch as being much superior to the ordinary larch, both as regards rapidity of growth and power to replace a lost leader. For exposed situations Mr. Wend recommended the planting of Austrian, Corsican and Scotch pines.

# Delphiniums.

By C. F. BALL, Royal Botanic Gardens, Glasnevin.

EVERYONE is familiar with the perennial larkspur, as its good all-round qualities have made it a general favourite. Whether planted in a small garden or massed pompously in a large bed on a lawn, the delphinium seems equally at home. Moreover, if its colour was entirely absent from the herbaceous border in June and July the gardener would probably have the "blues" himself.

Although such good species as *D. formosum*, *elatum* and *grandiflorum* have helped to build up the present race of garden varieties, these original species have been far surpassed by the hybridist, and we have now a wonderful range of blue in both single and double flowers. From a delicate porcelain blue we pass to deeper shades of plum and indigo, or the blue may be contrasted with a white or black centre. These named hybrids may be purchased from hardy plantsmen at 7s. 6d. to 15s. per dozen. To produce massive spikes as shown at our flower shows these plants must have generous treatment. If at all numerous the shoots arising from the stools must be thinned in spring, the remaining ones being secured to stakes to prevent breakage by the wind. As soon as the centre spike is faded cut it right away; by this means the side shoots may be induced to form a succession of bloom, or the plants may be cut down to the base, and if fed with liquid manure an autumnal display follows.

The best time to divide delphiniums is early autumn before growth has ceased, or in spring when growth has commenced. The named varieties may also be propagated by cuttings taken in spring with a heel, and inserted singly

in small pots, and placed in a cool frame or one with a slight bottom heat.

The best soil is a deep, rich loam, but where the soil happens to be light, add plenty of well-rotted manure. Unfortunately some of the delphinium species are not so easily grown as the hybrids. In few genera do we find such a range of colour, for though the blue and lilac shades preponderate, yet there are whites, yellows, and scarlets.

The scarlets are furnished by *Delphinium cardinale* and *nudicaule*—the latter is quite dwarf, rarely exceeding 18 inches. The best plan is to treat them as biennials; if sown in

the spring they should flower the following season.

One rarely has the pleasure of seeing *D. sulphureum* (syn. *salil*), for it is a rather rare plant, but a lovely one when happy, being lighter and more elegant in growth than the majority, reaching about 3 to 5 feet. Syria is its native country, where the flowers are used for dyeing silk.

*D. brunoianum* is another interesting species coming from Thibet, and has a

strong musk scent. The flowers are large, with peculiar parchment-like petals, in colour light purple, veined with a darker colour. There are two forms of *D. grandiflorum* which will appeal to many people—they are *D. grandiflorum caelestinum*, a truly celestial blue, and a double form, which, though an old plant, is still rare, but of remarkable beauty.

The annual larkspurs are forms of *D. ajacis* and *consolida*; if sown during March or April will brighten the borders throughout the summer months.

There are several good strains now offered, as the Stock-flowered and the Ranunculus-flowered. The seed should be sown thinly, thinning further when the plants are large enough to avoid overcrowding and to ensure the best results.

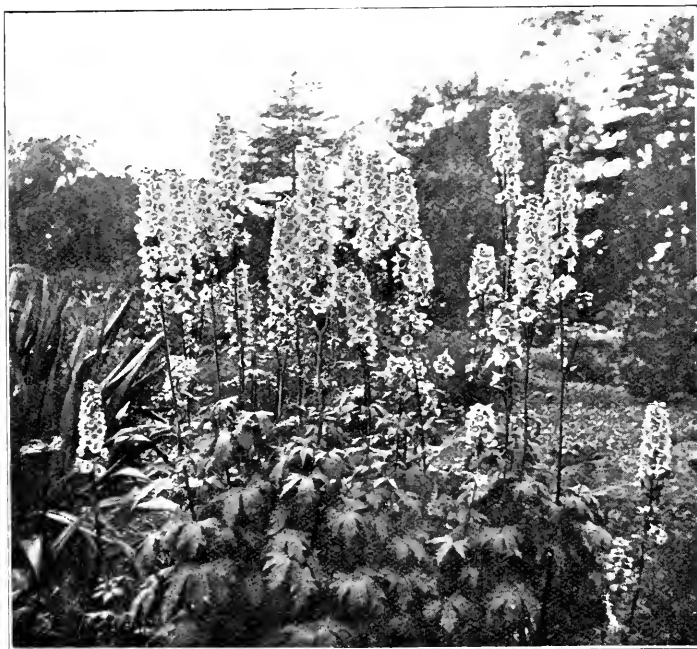


Photo Iv]

[G. O. Sherrard.

A Striking Group of Delphiniums, Botanic Gardens, Glasnevin.

## Notes and Abstracts.

By G. O. SHERRARD.

**E**IGHTH REPORT OF THE WOBURN EXPERIMENTAL FRUIT FARM. By the Duke of Bedford, K.G., and Spencer U. Pickering, F.R.S. This report contains a large amount of information relating to fungicides and insecticides obtained as the result of experiments carried out at the Woburn Fruit Farm. It deals with the nature of Bordeaux mixture and its action on fungi; also the cause of the scorching sometimes produced by it on the foliage to which the spray is applied. Lead arsenate is mentioned, and it is recommended that growers should purchase the paste already made up instead of attempting to compound it themselves, as the ingredients, if improperly mixed, are bound to injure the trees. Perhaps the most interesting and valuable portion of the report is that treating of emulsions of paraffin oil. Most gardeners know how fatal paraffin oil is to insect life, and use it for the winter washing of vines and the like, but they are also aware of the extreme care which has to be exercised in its application in order to prevent it from injuring the plants to which it is applied. It is found that if paraffin be applied in the form of an emulsion—i.e., broken up into very minute globules and thoroughly mixed with the water—it does not injure the plant tissues, but at the same time retains its insecticidal value. To obtain the emulsion gardeners usually churn the paraffin up with water in which soft soap has been dissolved. Mr. Pickering has found that if milk of lime be mixed with iron or copper sulphate, and paraffin be added to this mixture, a very perfect emulsion is formed with only a slight agitation of the liquid. The advantages of such an emulsion over one made with soap are:—(1) That a more complete emulsion is obtained. (2) The copper sulphate and lime (if used) constitute Bordeaux mixture and act as a fungicide. (3) In winter caustic soda may be added without destroying the emulsion, as would be the case if soap were used. Arsenate of lead itself acts as an emulsifier of the oil, so that in the case of its application a little paraffin might be used to increase its action as an insecticide. The report also contains notes on the removal of moss from apple trees and the adhesion of lime washes to trees. Accounts are given of experiments carried on to find out the best means of destroying aphids, apple sucker, and apple mildew.

Mr. Pickering recommends the following sprays as a result of his experiments:—

As a *winter wash* for destroying moss, lichen, scale, and some fungi:—(a) Copper sulphate,  $1\frac{1}{2}$  lbs.; lime,  $\frac{1}{2}$  lb.; solar distillate (paraffin), 5 pints; water to make up to 10 gallons; caustic soda, 2 lbs.; or

As a *winter wash* with no fungicidal properties:—(b) Iron sulphate, 8 ozs.; lime, 4 ozs.; solar distillate, 5 pints; water to make up to 10 gallons; caustic soda, 2 lbs.

As a *summer wash* for caterpillar, aphids, and mildew:—Copper sulphate, 10 ozs.; lime water, 8 gallons 3 pints; solar distillate, 16 to 24 ozs.; water to make up to 10 gallons.

As a *summer wash* for caterpillar and aphids only:—Iron sulphate, 8 ozs.; lime, 4 ozs.; solar distillate, 16 to 24 ozs.; water to make up to 10 gallons.

For apple sucker:—A decoction of 3 lbs. of tobacco powder to 10 gallons of water sprayed on the tree just before the blossoms open.

Judging from the results obtained at Woburn, these sprays are well worth a trial by practical growers. Care should be taken when applying the sprays containing 2 lbs. of caustic soda to 10 gallons, as at this strength painful burns are sometimes produced on the hands of the workmen. It would be advisable for the latter to wear rubber gloves.

## Current Topics.

By PETER BROCK, Orchard Terrace, Enniskillen.

**T**HE weather during the first half of February, being mild and spring-like, permitted out-door work—such as ploughing, digging and planting—to be done under favourable conditions. The calm, dull, dry days were also suitable for winter spraying, and much of this work has been done earlier, and apparently more thoroughly than usual.

The present rivalry between scientifically-prepared proprietary spray-fluids and caustic fluid mixtures will, doubtless, enable fruit growers to choose remedies in the future that will be more certain in action on fungoid and insect pests than those hitherto in general use. Trees which have been regularly and thoroughly sprayed with the caustic soda and pearlash fluid are perfectly clean and free from moss or scum. This fluid has not, however, given general satisfaction in destroying eggs, except where the trees have been sprayed twice, and as late as possible with safety to the buds. Those who have recently tried some of the new proprietary spray-fluids are pleased with the way the bark is cleaning. It will, however, be more interesting to learn later on how the eggs of aphids, apple sucker, and winter moths have fared. Special fluids for American gooseberry-mildew have also been tried under favourable atmospheric conditions—i.e., under as high a temperature as we need ever expect in February.

Bullfinches have recently caused considerable damage to plums and gooseberries by pulling off the buds. The sparrow near towns and villages is as destructive on buds of gooseberries as the bullfinch is in rural districts. After they have started their depredations, spraying with quassia extract will stop both of these birds from their wholesale destruction of buds. Take 1 lb. of quassia chips for every 10 gallons of water or spray fluid to be used; steep overnight in cold water, then boil for one hour; strain and add to the spray fluid; or, if applied without winter-spraying mixtures, add  $\frac{1}{2}$  lb. soft soap to every 10 gallons of water.

Besides insect enemies which infest the leaves of plants, there are wire-worms, eel-worms, gall-worms, and other pests which act on the roots, causing considerable injury, and sometimes the loss of carrots, parsnips, onions, potatoes, &c. Garden soils which have been liberally supplied with farm-yard manure are generally the worst infested with soil insects. Lime and soot when properly applied act as soil insecticides. These remedies, however, are entirely superseded by vaporite as a soil insecticide. It should be deeply worked into the soil before seed time, as it gives off a gas which works upwards.



### When to Sow Tomatoes under Glass.

For the main crop under glass sow the first week in March at a temperature of from 60 to 70 degrees F. As soon as the plants have made two leaves pot them off into four-inch pots in a compost of three parts good, fibrous loam and one part manure from an old hotbed. When the roots have well filled the pots plant out in a prepared border of loam and rotten manure. Train to a single stem, and keep all laterals pinched off as they appear. The plants may run up to 12 feet high, and will bear fruit from the bottom to the top of the haulm. Ventilate the house freely, top and bottom, in hot weather. When the flowers open a light tap to each plant at 12 o'clock noon will distribute the pollen, and cause a good setting of fruit. When the fruit begins to swell the plants should get a plentiful supply of water, using manure water at least once a week.

J. DEVINE, Kilworth.





## The Reader.

THE BOOK OF GARDEN PESTS. By R. Hooper Pearson. London: John Lane.—This little work forms one of the volumes in the "Handbooks of Practical Gardening" series issued by the Bodley Head Publishing House. The author has effectively utilised in its preparation the peculiar information acquired during a fifteen years experience as Sub-Editor of the *Gardeners' Chronicle*. The text is well arranged, clearly presented, and abundantly illustrated with plates and drawings. After an introductory chapter the book goes into details concerning Insecticides and Fungicides, and then proceeds to deal in succession with the various pests in different groups of plants and animals, concluding with a short chapter on "Generalities." As an example of the style of the work we take at random the following:—

"DAMPING OFF FUNGUS (*Pythium de Baryanum*).—This is a fungus disease, which attacks very young seedling plants of *Brassicæ* and other cruciferous species, also cucumbers and other plants. The tiny plants are attacked just above the ground level, and the tissues become destroyed, the plants fall over from that point. Excessively damp conditions are necessary for the spread of the fungus. The remedy should be to sow seeds only in perfectly drained soil and to ventilate the atmosphere sufficiently if the seeds are sown indoors, taking care also not to employ more shade than necessary."

The author does not profess to deal with the purely biological side of his subject, and therefore no attempt is made to even outline the life histories of his pests. He evidently keeps the busy working gardener before him in every line he writes, and the result is the production of a work the usefulness of which it would be difficult to overrate. For those who wish to study the biology of the subject, there are several works already available, but for the practical gardener or fruit grower this is the very best book he can have for ready consultation and immediate help. We regret, however, that the author was unable to carry out his original intention of adding a glossary of the technical terms used in these chapters. It would have been a great aid towards its intelligent use by the non-scientifically trained man. The price of the book is half-a-crown. Every Horticultural Instructor should carry it about in his pocket, and every gardener should have it on his shelf for ready reference.

LIST OF BRITISH PLANTS FOUND EITHER AS NATIVES OR GROWING IN A WILD STATE IN BRITAIN, IRELAND, AND THE CHANNEL ISLANDS. By George Claridge Druce. Oxford: At the Clarendon Press. 1908.—This is an indispensable little book to the field botanist. It is an authoritative list of all the species and varieties of wild plants known to occur in the British Islands, including flowering plants, ferns and charas. From it we learn that there are 1,390 native species, 401 sub-species, and 89 doubtfully native species. In addition to these there are 144 well-established alien species and 940 more or less fugitive aliens, making a grand total of 1,084. Of these there are 52 trees, 210 shrubs (of which 129 are *Rubi*), 7 climbing plants, 1,020 perennials, 76 biennials, and about 350 annuals. It is interesting to note the result of the compiler's audit as to the habitat or place of growth of these species. To get

better proportional totals the *Hieracia* and *Rubi* are disregarded. First, as to the dry-soil loving species, of which there are about 580 species, 180 are rock plants (12 affecting moist rocky places and 20 distinctly lime-lovers), 100 are sun-loving species requiring free drainage, while 120 prefer dry turf (20 of which are lime-lovers), 100 are salt-lovers, and about 80 are heaths, which of course are lime-haters. The water-loving species number nearly 700 species, of which 250 species are marsh and bog plants, while 120 are distinctly aquatic. The largest sub-groups, however, is made up of woodland plants or those demanding shade and moisture, and, as the compiler remarks, its size (300 species) throws a sidelight on the ancient condition of these islands as a wooded country. Alpine plants (that is those that do not normally occur below an altitude of 1,000 feet) number about 110 (besides about 30 *Hieracia*). Agrestals (that is, those found as weeds on tilled land) number about 110. The aliens listed reach the high total of 1,100. Their origin may be traced to a variety of causes, to seeds brought in ballast and in imported forage, and agricultural seeds and to garden escapes, town refuse, and so forth. The book is issued in paper covers, and costs half-a-crown.

THE CULTURE OF FRUIT TREES IN POTS. By Josh Brace. London: John Murray.—A copy of this now well known book has reached us, and containing as it does full directions for the culture of fruit trees of all kinds in pots, including details of the design and erection of the structures necessary for the protection of the trees, it forms a most reliable guide to the subject. One of the most valuable features of the book is the calendar of work in which directions are given for the treatment of the trees throughout the year. To the cultivator anxious to grow fruits in this way the present work can be safely recommended.



## A Few Hints on Seed-sowing in Pots.

It is the best plan to sow tender annuals in pots, and then transplant to open ground towards the end of May. A few remarks on the methods and principles of sowing may be helpful during the present month. As the majority of the seeds are small it will be necessary to use finely sifted soil. To favour germination and enable the seedlings to develop unchecked, it is important that the soil used should be capable of holding a sufficiency of moisture, while at the same time it must be open enough to contain air, and to allow of its free interchange with the surrounding atmosphere. To secure such conditions the soil should be specially prepared by mixing together a distinctly sandy loam and sifted leaf mould in about equal proportions. The organic matter will hold moisture, while the presence of the sand will keep the soil well aerated. With such a soil, too, transplantation can be done with a minimum check to growth owing to the ease with which it is held by the mass of rootage. The pot must be well provided with drainage, and over the crocks should be spread moss or some fibrous material to prevent the soil from choking up the outlet for water. The soil may now be put in the pot, firmed down, and the surface levelled. In sowing the seeds, especially if they are small, great care should be taken not to sow them too thickly. It is a too common mistake, and brings about an altogether unnecessary ruinous struggle for room among the seedlings afterwards. Very small seeds must be lightly covered with sifted earth. In most cases no artificial heat is absolutely required for germination, all that is really needed being the protection of a cold frame. Care must be taken to shield the seedlings from intense sunlight, but at the same time light is necessary for sturdy growth. The seedlings should be pricked off so soon as they may be conveniently handled. When all danger of frost is past they may be planted out.

## The School Garden.

By L. J. HUMPHREY, Special Instructor in School Gardening under the Department of Agriculture and Technical Instruction for Ireland.

**I**F a beginning is to be made in a small way with school gardening it can best be done by means of flowers. No considerations as to lack of space, time, tools or the wherewithal to purchase them need hinder the teacher from commencing the work. A few packets of seed will cost but little, and where space is limited the plants can be grown in pots or boxes, and used to adorn both the outside and the inside of the school. Inside they are far superior to the unchanged and unchanging wall pictures, and outside they are an example to the district. Where there are individual plots, three or four feet at one end of each plot should be planted with flowers—annuals for preference—selected as far as possible by the pupils.

These small plots should be supplemented by larger beds and borders worked by the whole of the class. The majority of the flowers suited to the school garden appear to greater advantage when planted in beds specially arranged for decoration, and the general appearance of the grounds will in this way be greatly improved. To have attractive beds it is not necessary that the flowers should be in straight lines; bold clumps are far more effective. By planting tall plants towards the centre of the bed or towards the back if in a border a background will be secured against which the plants in front will stand out boldly. Perhaps the best use to which the flowers and decorative plants can be put is in beautifying the school grounds.

In shady corners ivy or periwinkle will flourish, while by making a narrow border round the school—replacing the soil with a mixture of loam and manure if necessary—a number of showy annuals and perennials can be grown. Sunflowers and hollyhocks look and grow well with a wall behind them, provided the soil is neither too dry nor too poor. Sweet peas require a deeply-cultivated and well-manured soil, but this should not be hard to obtain in all but the most hopeless of grounds. Nasturtiums (*Tropæolum*) are invaluable—the tall varieties for covering bare pillars, posts, tree stumps or fences; the dwarf varieties for narrow beds, edgings, and window boxes.

To make the flowers grown by the scholars of real educational value something more is desirable than decorative effect, necessary though this is. Plants classified in a definite way will gain in interest, and need lose nothing of their attractiveness. Local circumstances will perhaps suggest the particular classification to be adopted, but a school garden could include beds for native plants, for plants of economic value, plants interesting historically, and those connected with the literature being studied in the school. More strictly scientific would be the beds to illustrate the plants typical of various soils and situations, and a garden in which the plants are arranged in their natural orders. These are not difficult to manage, and whatever may be said as to their disadvantages have always something of interest.

With March the work of seed sowing must be pushed actively forward. A further sowing of peas should be made, and such of the parsnips and broad beans as were not planted last month should be got in without delay. On a dry day onions should be sown, making the soil firm with the back of the spade. Seed beds for leeks and Brussels sprouts should also be prepared. In the flower borders most of the hardy annuals can be sown, reserving some seed of each kind till next month, in order that some of the flowers may last till later into the autumn. Grafting must be carried out this month, and a preliminary lesson should be devoted to practice on shoots from the woods and hedges. If the stocks to be grafted are few in number, this plan will give practice to all the pupils, and the failures will not be so numerous when the actual grafting is carried out.

## The Maidenhair Fern

(*ADIANTUM*).

By P. MAHON, The Gardens, Killeen Castle, Dunsany.

**F**OR the decoration of conservatory or sitting room few plants repay better than the *adiantum* when given the care and attention it requires. When well grown it is almost second to none. Whereas, on the other hand, nothing looks so miserable as a weak, sickly plant of *adiantum*. The general causes of failure in the proper growth of this plant is excessive drought or the injudicious use of the watering pot—the last named factor being, I should say, the principal one. How often do we see, more especially during the dull winter months, fine plants entirely denuded of fronds in the centre of the pots, which speaks for the carelessness in the use of the watering pot. Now, to grow this fern to perfection we must at the outset see that the pots or pans for their reception are scrupulously clean and also properly drained. If the last named is not done with care the soil becomes stagnant, which certainly means a lingering death to the plant.

**SOIL.**—The soil best suited to the *adiantum* is two parts good fibrous loam, one part peat, one part decomposed leaf-mould, with a good sprinkling of coarse silver sand to keep the soil open, and if the compost could get a light dressing of bone meal it will be of benefit to the plant also. When mixing the soil, keep a sharp look out for worms, and if any should come under notice they should be removed.

**POTTING.**—The best time for this operation is the first or second week in February, or, if unavoidably held over from some cause or other, can be carried out with success to the middle of March. Care must be taken when the plants are being brought from their quarters for potting to avoid draughts as much as possible. Indeed, it would be much better if the operation could be carried out in the house where the plants are to remain. If time permits, the soil might be warmed a little before using, as this will be a great advantage to root action. It is a gross mistake to repot established plants until they really require it. Every second year ought to be quite sufficient, aided with an annual top-dressing. To perform this latter operation remove some of the surface soil, taking care to injure the fibrous roots as little as possible. When a plant requires repotting, care must be taken not to use too big a pot. A size next larger than the one it formerly occupied is quite sufficient. When potting, use a thin lath in order to work the soil well down to the bottom of the pot, and afterwards using a larger rammer to firm the whole.

**WATERING.**—The plants, having been finally potted, will not require water for at least a day or two afterwards. They should be kept close and shaded, if occasion arises, and if syringed over-head with tepid water on bright forenoons, they will soon recuperate from the effects of their re-potting. When watering, the fronds should be held back gently with one hand and the water let in gently around the plant instead of raising the watering pot, and letting the water go at will down the centre of the plant. When well established, an occasional dose of weak soot water will aid in keeping up that dark green colour in the fronds which is always a characteristic of a healthy and luxuriant plant.



# The Month's Work.

## The Fruit Garden.

By GEORGE DOOLAN, Instructor in Fruit Culture, Department of Agriculture.

**GRAFTING.**—This interesting work is best done in the early days of April, though if the weather be mild and favourable it may be done in the last week of March. Pears should be taken in hand first, then plums, and the apple last of all, the pear being fully a week earlier.

Grafted trees can now be got so cheap at the nurseries that it is doubtful if it is worth the trouble of doing the work oneself; however, it is an operation most fruit growers like to be able to perform. There are in many places old favourite varieties which the owners would like to preserve, and grafting is the means to that end. Again, it sometimes happens that young trees fail to do well, looking sickly and delicate; by cutting these back and crown grafting, new life and vigour may be said to be put into the tree. Trees badly cankered may be cut back and treated likewise.

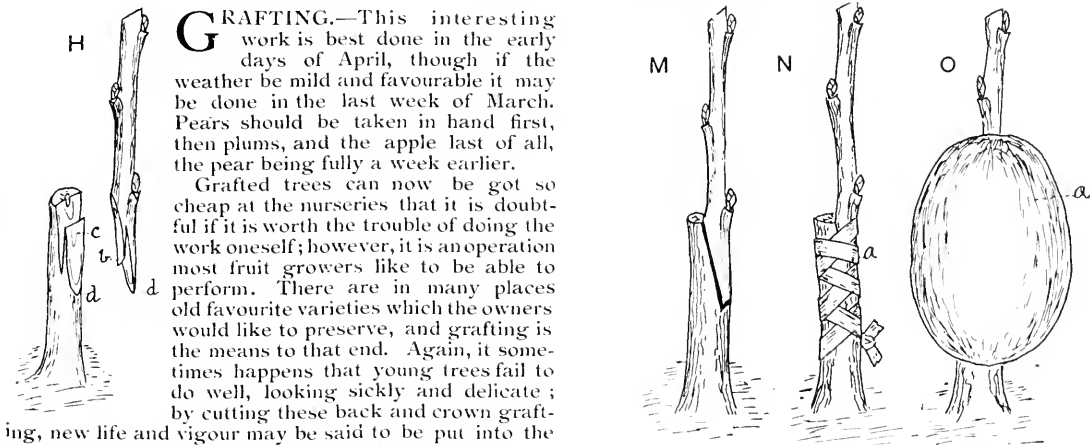
The great objects of grafting are to increase good varieties, to give vigour to delicate-growing trees, to reduce vigour in those that make too much wood and no fruit, and to quicken fruitfulness. The accompanying diagrams (from the original drawings of Mr. E. H. Bowers) show two popular methods of grafting—viz., tongue grafting (H M N O) and crown grafting (Q R S T).

The first method is used where the stock is thin, and the second where the stock may be any thickness.

The scions should be prepared with a very sharp knife, and it is most important that the barks of the stock and scion should be in contact, as the cells from which new growth takes place lie between the bark and the wood. If the scion is smaller than the stock, then the bark at one side should be placed in contact; this applies also to tongue grafting. The details of tongue grafting need not be described, as they are clearly shown in the sketches. In the

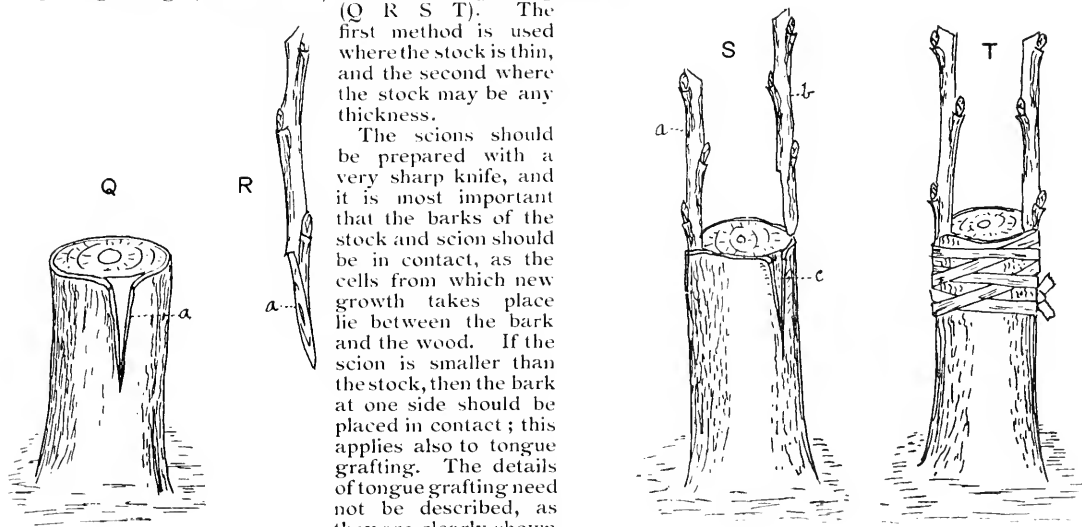
case of crown grafting a slit is made on the bark (Q a), and the scion (R) is inserted (S). Having first carefully raised the bark, bind firmly with cotton thread or raffia string (T), and cover all over with grafting wax or prepared clay to exclude air, as shown in (O). When the new growth is about two inches long this covering must be taken off. Grafting wax prepared in tins can be obtained off seedsmen, but prepared clay will be quite as effectual. A quantity of loamy clay of a sticky nature should be got and all stones extracted (such clay is usually got by digging two feet deep); beat up well and

mix cow manure and horse droppings, about an equal quantity; make like putty, and apply firmly around stock and scion to the size of a goose egg. It is advisable to have the scions cut some time previous and placed in the ground to keep fresh. As the union takes place better when the stock is commencing to grow, or at least when the sap is rising, the scions when cut a few



weeks previous are in a more dormant state; they must not, however, be prepared until the moment of grafting.

**RASPBERRIES.**—These should be pruned without delay; the amount to be cut off each cane depends upon the growth. All weak canes should be cut hard back, and newly planted ones may be cut to six inches from the



ground. Where raspberries are planted in clumps, all superfluous growths should be cut out. Allow only seven or eight canes to each clump; these should be tied and have the tops cut back somewhat. All weeds growing among the canes should be pulled, and a dressing of good manure be given to the surface. This will be of great benefit, as the raspberry is a surface-rooting plant which throws out an abundance of root fibres.

Complete the pruning of fruit trees wherever the work may have been delayed, and any suckers arising from the roots should be carefully dug out with the spade.

## The Flower Garden.

By J. G. TONER, Horticultural Instructor, Co. Longford.



**T**O suit various requirements hyacinths, tulips, narcissus, and other bulbous subjects can now be brought gently into bloom; they must occupy a nice, light position, and the more slowly they are brought along the sturdier the plants will be and the blooms more lasting. The staking of hyacinth spikes requires particular care, and the ties at all periods should be quite loose, else disaster may follow. The later batches should be kept quite cool in frames or pits so that a succession of bloom may be secured.

Repotting and division of various ferns may now be proceeded with, as many kinds, such as adiantums, priterises, aspleniums, &c., will be making new growth. When it is not considered advisable to repot, the surface soil should be removed with a sharp-pointed stick, and sweet, fresh soil put in its place. The addition of a small proportion of some good fertiliser will add greatly to the vigour of the new growth. A suitable all-round compost for ferns would be two parts loam, one of peat, and sufficient clean, sharp sand to keep the whole porous. When the more delicate kinds are being treated some broken charcoal may be added.

The gorgeous show pelargoniums will now need special attention in regard to staking and training the shoots; feeding, too, must not be overlooked when fine and large specimens are desired. Small plants that may have been wintered in three or four inch pots may be placed in fives or sixes, and will make handy and showy plants for room decoration. Occasional fumigations will prevent attacks of fly.

Chrysanthemums will do nicely now in cold frames. Too much air can hardly be given. The majority of them should be in five-inch pots, and the pinching of the shoots must not be forgotten. The final choice of plants and varieties now demands attention, and it will be found more satisfactory to grow a limited number well than to spoil a whole lot. Single chrysanthemums have a special value, and there might with great advantage be a fair proportion of these and the lovely little Pompons grown in every collection. In reference to the pinching or stopping of the shoots, this should never be done immediately before or after potting.

If not seen to already this is a proper time to place dahlia roots in heat to start the growth. When the young shoots attain a length of about four inches they can be removed from the parent plant and stuck in small pots; one only should be placed in each pot. As an alternative, the old root or stool may be cut into several parts, each having a young shoot or shoots attached; the former method, however, is the better. There is very often a tendency to have these potted plants too forward, in which case, if the weather is unfavourable at expected planting time, the plants will be seriously checked in growth.

Hardy annual seeds should be sown now as the weather permits. A golden rule is to sow thinly and thin out the plants afterwards with an unsparing hand. Not every person who sows such seeds takes sufficient pains to thoroughly dig and manure the ground before doing so. A notion appears to be general, that any position or any condition of soil is good enough for them,

and because they in a general way are so accommodating any treatment is supposed to be good enough; but there is a very considerable difference in size of blooms, lasting qualities, and general appearance of those plants grown on soil that has been well worked and manured and those struggling for existence on a hard and hungry patch of ground.

About the middle of the month seeds of asters, stocks, phloxes, marigolds, schizanthus, balsams, petunias, and many others of a kindred nature should be sown in heat; here again sow thinly, do not over-water, and prick out young plants before they are crowded, and shade after pricking out.

Herbaceous calceolarias will now require attention. If very large plants are wanted the final shift may now be given, those in six-inch pots going into eights or nines. Grand specimens can be grown in these. If this is not done the plants must be fed regularly, and the soil never allowed to get quite dry. Keep them as cool as possible, remove decaying leaves, and see that under no circumstances the green fly is permitted to gain a footing, it being specially destructive to those beautiful plants.

In the outdoor garden the planting of shrubs, especially deciduous kinds, and roses should now be nearly finished. There is still good time for evergreens. Re-arrangement of herbaceous borders, if not done as advised last month, must be pushed on. Climbing plants on walls, arches and trellises will require more or less pruning; this may be proceeded with. Shrubs, too, that are exceeding the space allotted to them may also be dealt with, the knife in all cases being used; the natural growth and habit of each specimen will suggest to the intelligent mind the best method of pruning. Pansies and violas should be transferred to beds or borders, and will give a fine display later on. Seeds may be sown towards the end of the month. Such plants as Canterbury bells and wallflowers can still be moved to fill gaps in beds or in available space through shrubby borders; the balls of soil should be carefully preserved, so that little check may be sustained. Sow sweet peas again to succeed those sown in heat last month.

Seeds of Hybrid primroses and polyanthus can be sown in boxes at any time now; they are better value than many plants that get far more attention. A beautiful variety can be obtained from a mixed packet of seeds from a good source, and in rich, moist ground they will give flowers on fine, long stalks, and will be found useful and pretty at a season when there is not much choice in hardy flowers, at any rate in colour. Rockeries, rock gardens, fern corners, &c., should now receive a thorough overhauling, and be cleaned and topdressed. Carnations and pinks, if not looked after last month, ought now to receive attention, and be placed in the quarters selected for them. A great deal of other work will suggest itself to lovers of gardens, and in this the busiest month of the year for the gardener plans must be made and thorough preparation, too, if success is to be attained



## The Vegetable Garden.

By WILLIAM TYNDALL, Instructor in Horticulture, Co. Kildare.

**C**ROPPING.—This season, with the month of January and part of February so wet, those who have heavy, retentive soils to cultivate are likely, unless the latter part of February is fine, to be late in getting in the several crops. If seeds are sown when the ground is in a cold, wet state, not only is it impossible to do the work well (as walking about makes the soil pasty), but there is also every chance of the seeds failing to germinate. Better

be even late in sowing seeds than to run the risk of puddling the soil by working it while wet.

**POTATOES.**—If the ground is in good condition for planting, the bulk of the potato crop should be got in this month, though if proper care has been taken of the seed it matters very little if the weather prevents planting till early in April. This is one of the many advantages of sprouting in boxes. Growers of early potatoes must always study the locality, and know whether late May frosts may be expected, as to plant early varieties such as Ninetyfold and Puritan, with fine, well-grown sprouts, very early in such places would be certainly unwise. Strong growers will require the drills at least 32 inches apart and the sets 15 inches apart, including all the main crop varieties, and British Queen, while 28 inches apart and the sets 12 inches, would suit Ninetyfold and Puritan, good early varieties. In planting, if the ground has not been manured in the autumn, use well-decayed manure and a liberal dressing of a good, artificial manure—superphosphate, 5 parts; sulphate of potash, 2 parts, and sulphate of ammonia, 2 parts— $\frac{1}{4}$  lb. to square yard will produce rapid growth.

**CAULIFLOWERS.**—Autumn sown cauliflowers have wintered well, so that there will be no scarcity of early heads. In planting out, lift each plant carefully with a ball of soil attached to the roots, and select a well sheltered, sunny border for the earliest crop. Cauliflower plants dearly love manure, and ground for them should have been deeply dug, or, better still, trenched and heavily manured during the winter. Carefully attend to the airing of those sown in heat in January to prevent them becoming drawn, so that they will be in good condition for planting next month, a like remark applying to onions, leeks, lettuces and Brussels sprouts raised in heat and singled out into boxes and frames last month.

**CELERY.**—Sow the seed for the main crop of celery in boxes on a gentle hot-bed. Attend to early celery sown in boxes, and as soon as they are large enough dibble out into other boxes, lifting carefully to preserve the roots. Use fine, rich soil for filling the boxes, placing a good inch of decayed manure in the bottom of the boxes, and make firm. The roots will ramble through it, and the plants will lift with fine balls attached when planting out.

**CARROTS.**—Young carrots are generally wanted as early as possible, and these ought to be grown in frames on hot-beds, though even when frames cannot be spared I have often raised good roots by making a mild hot-bed, and placing on top of it a temporary frame made of an eleven inch wide board and one inch thick, putting inside this board 8 or 9 inches of fine, friable soil and sowing the seeds 1 inch deep in lines 9 inches apart. Radishes on mild hot-beds grow very quickly, and if a few seeds are sown through the carrots many nice, tender roots can be had, for when sown early in the open they grow very slowly, and are often very much injured by slugs and fly.

**TURNIPS.**—Early Milan turnip gives grand crops when grown on mild hot-beds with or without a covering of glass. Seeds of this variety if sown now and protected from birds, and given an occasional dusting of soot and lime, should produce a good crop. Any other variety if sown early generally runs to seed.

**SEEDS.**—Make successional sowings of beans "broad," peas, spinach, lettuce, &c. (For varieties see calendar in January number.) Towards the end of the month make sowings of cabbage and early broccoli seed on a well-sheltered border. Brussels sprouts should also be sown, covering with a net immediately to prevent birds taking the seed. Leeks should also be sown this month in the open, sowing thinly one of the varieties recommended in January number.

**ONIONS.**—See separate article adjoining.

We have now come to a time in the year when all work must be pushed forward before a more busy season arrives.

## A Note on Onion Growing.

**T**HE past season was not favourable generally to well-grown and ripened crops of onions, yet in a few cases in this county I saw such remarkably fine crops of well-ripened bulbs that I asked myself what are the causes of so many complete and partial failures. I am inclined to blame late and thick sowing, want of proper preparation of the ground, and injudicious thinning. Taking the preparation of the ground first, we all know that almost any kind of land will grow good onions if properly prepared—a loamy soil, not too heavy and of good depth, being the best, as it takes much less preparation than stiff clays and very light soils. No matter what kind your soil is, trench it deeply—2 to 3 feet—giving a good dressing of manure during the winter. With light soils I like to get all trenching done as early as possible in order to allow the soil to settle before seed sowing; and also, if light soils are trenched during February and March—during the drying winds that we often have in these months—the ground gets parched up, and the crop suffers if a dry summer follows. With heavy, stiff clays it is often preferable to defer trenching till the ground is dry in February or March. Of course dig such ground up rough for the winter, unless occupied by another crop. Give a dressing of lime,  $\frac{1}{2}$  lb. to the square yard, on surface of ground after trenching and two or three weeks before sowing seed or planting out the onions, if raised under glass. Give the ground a dressing of artificial manure—3 parts superphosphate, 2 parts kainit and 1 part sulphate of ammonia or nitrate of soda; mix well, and apply at the rate of 4 ounces to square yard (avoid mixing superphosphate and nitrate of soda till immediately before using), or give a good dressing of soot and wood ashes, and lightly fork in.

Many gardeners who grow onions well make it a rule to follow celery with onions, only digging in a good dressing of manure as early in the winter as the celery is used, and immediately before sowing seed they give the ground a good dressing of lime, soot and wood ashes. The deep cultivation and heavy manuring for the celery is a grand preparation of the ground for the onion crop, leaving it easy to work in early spring; and there is no doubt that the state of the ground when sowing is an important matter in the success or failure of onion growing. If the soil is warm, free, and not retentive of moisture, get the seed sown the end of February or early in March—that is, if the weather permits. On cold, stiff clay soils March is quite early enough to sow the seed.

Before sowing rake over the plot, gathering off any stones, and leaving level. Next draw shallow drills, 9 to 12 inches apart, as by having rows at this distance hoeing is easily done and much hand-weeding avoided. Cover in the seed with the feet, making the ground firm, and finish neatly by raking the plot over. It is a good plan to leave an alley 18 inches wide between every six rows of onions. Hoe frequently all through the growing season, once the onions are up, to encourage growth, giving a dressing of soot and any other good manure weekly. Weak liquid manure is of great value, especially on light soils. Thin early, but not severely, as if large onions are required they are more easily got by sowing seed under glass.

When growth is finished, bend over the tops carefully by the hand; doing this with a rake, as is generally done, must cause much mischief to the bulbs by bruising. After the tops are a couple of weeks bent down pull and place in the sun to ripen.

W. T.

The Dwarf Bean is a very pretty and productive variety for small gardens. Its small green beans, if gathered before ripening, are scarcely inferior in flavour to Marrowfat peas. It may be sown more closely than any other longpod bean, and is excellent for early work.

P. J. K.

## Bee-keeping.

By T. MAGUIRE, The Orchard, Enniskillen.

THE winter, so far, has been favourable to the bees. The weather has been sufficiently cold to keep them confined to the hives—the cluster is the most economical place for them during these months—whilst there have been occasional opportunities, not too frequent, for the necessary cleansing flights, so that the consumption of stores and wear and tear of bee life must have been almost at a minimum.

When snow is on the ground it is most important to shade the entrance in some way; without this precaution the reflected light from the snow deceives the bees as to the state of the weather; they come out and get chilled, and are unable to make their way back again, sometimes also falling victims to birds, which often work great havoc when other feeding is scarce. The "blue-bonnet" and "sally-picker," as they are sometimes called, are among the worst offenders. It is amusing to watch these little wretches at work—they will hop on the flight-board, and peck the board. Sometimes they actually whistle into the entrance! The unsuspecting bee comes out to reconnoitre, and is, of course, immediately pounced upon, carried to a neighbouring branch, and devoured. During snow the dismembered bodies of dozens of bees can be seen lying around where these birds have been feasting upon them. They generally keep to one particular hive, and will thin it seriously in a short time if not prevented. It is a pity to kill these birds, which, apart from their beauty, are exceedingly useful in the garden, destroying myriads of insect pests. A piece of netting stretched from the porch will check their ravages considerably.

Hive roofs should be examined to see if they are leaking, and if any dampness be found prompt measures should be taken to make them waterproof; any damp coverings should be removed, and replaced by dry ones.

Bee-keepers intending to increase their stocks this season might occupy spare time in the winter evenings profitably in making hives. A spare hive is a most desirable thing to have, one never knows when it may suddenly be required. Every bee-keeper should be able to make his own hives—no wonderful skill is required. Unless the hives are intended for a prominent position there is no necessity for going to much expense. Grocers' boxes will make as useful hives as the most expensive material; the only vitally important point is the accuracy with which the brood-chamber must be made, and, of course, the weather-proof character of the hive. Bees will work in almost any kind of fixture, and the perfection of modern hives is more for the convenience of the bee-keeper than of the bees.



FROM statistics issued by the Department of Agriculture, it appears that during the year 1907 there was a considerable decrease in the area devoted to tillage in Ireland. The decrease (amounting to over 88,000 acres) took place chiefly in the province of Ulster and Connaught. The same return shows a fall in the average yield of potatoes. The average for the last ten years is represented by a yield of 4.1 tons per statute acre. The average for last season was only 3.8 tons. (In 1906 it was 4.3 per acre.)



EARLY Express is one of the very best cabbages for spring sowing; it grows very quickly if sown thinly in lines on an old onion bed, assisted later with a little nitrate of soda.

P. J. K.

## Answers to Correspondents.

*Correspondents when asking more than one question will please write the queries on separate sheets of paper.*

THE BLACK CURRANT GALL MITE.—A "Correspondent" sends us specimens of black currant twigs, and



Branch of Currant showing  
"big bud."

asks if they are affected with "mite." They are. As it is most important that all fruit-growers should be on the look out for this destructive pest we give an illustration of a twig the buds of which are suffering from an attack of these terrible, yet exceedingly tiny, creatures. It will be noted that the "diseased" buds are bigger and plumper than ordinary; hence the common name of "big bud" applied to this trouble. When discovered all such twigs should be cut out and *burned*, as the little pest migrates from their old winter quarters to newly formed buds in early summer, and in this way it spreads through the plantation.

Growers should be exceedingly careful not to take cuttings from affected bushes. If any particular bush is badly affected the best thing to do is to uproot it, and at once destroy it with fire.

WIREWORMS AND LEATHER-JACKETS.—"Troubled," sends the larvæ of Daddy Longlegs or "Leather-jackets," and asks if they are wireworms. As the two things are entirely distinct, yet frequently not differentiated by gardeners, we give illustrations of them.



Wireworm.

The wireworm is the larva of the skipjacks or click beetles. They are slender-jointed creatures, with *three* pairs of jointed legs (from which, by the way, they may be distinguished from millepedes, which have many pairs of legs).



Leather-jacket.

The leather-jackets are bigger and legless. Wireworms remain in the destructive larva state in the soil for three seasons and the leather-jackets for one only, until they pass into the pupa condition. Obtain Leaflets 10 and 51 from Department of Agriculture.

WINTER-FLOWERING PRIMULAS ("H. P.").—Several weeks ago a writer in the *Gardeners' Chronicle* drew attention to certain yellow-flowered species and hybrids of primula that will suit your purpose exactly. They were *P. floribunda*, *P. f. Isabellina*, and *P. Kewensis*. They are all handsome, fragrant, and floriferous, and are excellent as cut flowers for table decoration.

## BEE-KEEPING MADE PROFITABLE.

Every Bee-Keeper who desires success should read

# THE IRISH BEE JOURNAL

(Established 1901).

*Official Organ of the Irish and Affiliated, Cumberland, and Perthshire B. K. Associations.*

**THE LARGEST PENNY BEE PAPER IN THE WORLD.**

Received with enthusiastic approval and congratulations at Home and Abroad.

"One of the brightest in the world."—*Gleanings (American).*

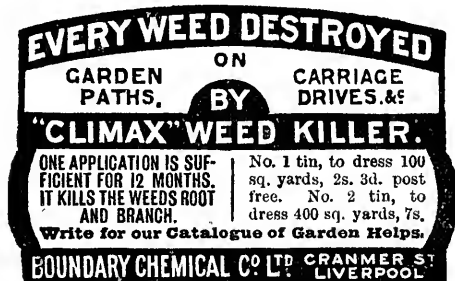
"One of the liveliest and best Apian journals in all Europe."—*American Bee-Keeper.*

"Could not be equalled."—J. FAHY, Kilkenny.

"Facile Princeps."—Rev. W. V., England.

Monthly 1d.; 1s. 6d. per Annum, Post Free.

From the Office, IRISH BEE JOURNAL, Lough Rynn, Dromod, and of all Newsagents.



## TAIT'S

# GARDEN SEEDS

**ARE THE BEST.**

Carriage Paid.

Selected Vegetable Seeds.

Choicest Flower Seeds.

Imported Seed Potatoes.

Every Requisite for the Garden.

Call or write for Tait's Annual List, post free.

## W. TAIT & CO.,

Seed Merchants,

119 & 120 Capel St., DUBLIN

## JOHN FALCONER,

LITHOGRAPHERS, PRINTERS,  
BOOKBINDERS, PUBLISHERS,  
AND STATIONERS,

**B**EG respectfully to draw the attention of Advertisers to their special facility for producing in first-class style, and at a reasonable cost, Seedmen's and Nurserymen's Catalogues, illustrated either in black or by the three-colour process; Price Lists, Attractive Folders for inserting in Magazines, &c., &c. All work entrusted to our care is executed by skilled and competent workmen, and the resources of our Establishment, both in suggestion and first-class material, are at their command.

**ESTIMATES FREE ON APPLICATION.**

**Specialities:** MUSIC PRINTING IN BOTH NOTATIONS, AND WORKS  
IN THE IRISH LANGUAGE.

**. . 53 UPPER SACKVILLE STREET, DUBLIN . .**

**When Planting** —————

**FOREST, FRUIT,**

**OR**

**ORNAMENTAL TREES,**

**THORN QUICKS,**

**AND**

**HEDGING PLANTS,**

**WRITE . . .**

**WM. POWER & Co.,**

**Nurserymen,**

**WATERFORD.**

---

**ILLUSTRATED NURSERY CATALOGUE POST FREE.**

---

**Over 600,000 Forest Trees** were exported from our  
Nurseries last Season to England, Scotland, and Wales.



APRIL 1908.

TWOPENCE.

# Irish Gardening

## Contents

	PAGE		PAGE
A Little Sermon . . . . .	49	The Shamrock . . . . .	57
Manuring of Crops . . . . .	50	Current Topics . . . . .	58
Notes and Abstracts . . . . .	51	The Escallonias . . . . .	58
Hardy Annuals . . . . .	52	Roses . . . . .	59
Economic Brevities . . . . .	53	The Herbaceous Border . . . . .	60
School Gardening . . . . .	54	The Month's Work . . . . .	60
The Cottage-Flower Garden . . . . .	54	How to Grow Carrots for Exhibition . . . . .	62
Stonecrops . . . . .	55	Notes from Glasnevin . . . . .	63
American Gooseberry Mildew in Ireland . . . . .	56	Bee-keeping . . . . .	63
		Correspondence . . . . .	64

### DUBLIN

PRINTED AND PUBLISHED BY JOHN FALCONER, 88 UPPER SACKVILLE STREET.  
OBTAINABLE AT RAILWAY BOOKSTALLS AND FROM NEWAGENTS THROUGHOUT IRELAND.  
WHOLESALE AGENTS: MESSRS. EASON & SON, DUBLIN & BELFAST;  
GEORGE VICKERS, ANGEL COURT, STRAND, LONDON.



## WINDOW GLASS.

Polished Plate for Shop Windows.  
Ornamental Glass of all Descriptions.  
Horticultural Glass at Lowest Rates.

## DEATH TO THE WEEDS. HOYTE'S WEED KILLER.

*Strongly Recommended for the Destruction of Weeds, &c.*  
Price, 2s. per gallon; 5 gallons, 1s. 6d. per gallon;  
10 gallons, 1s. 3d. per gallon; Original 40-gallon casks,  
1s. per gallon.

**HOYTE & SON**, The City of Dublin Drug Hall,  
17 LOWER SACKVILLE STREET, DUBLIN.

## LAWN MOWERS, WIRE NETTING, GARDEN REQUISITES.

## S. W. PAINTS FOR FARM AND GREENHOUSE.

THOS. **DOCKRELL** SONS & CO., LTD.,  
DUBLIN.

## POTASH MANURES.

**ALL CROPS REQUIRE POTASH.**—  
Especially Potatoes, Roots, Flax, Grass,  
Clovers, Peas, Beans and Onions.

The best way to supply Potash for Crops is to apply  
Kainit in Winter or Muriate of Potash, or Sulphate of  
Potash, in Spring or at seed time to the Soil.

Leaflets and Pamphlets may be had on application to  
**GEORGE RICE**, MANAGER, AGRICULTURAL OFFICES,  
15 Parliament Street, and  
50 Essex Street, DUBLIN.

Potash Manures may be had from all Manure Dealers.

All Original Illustration Blocks in  
"Irish Gardening" are executed by  
THE

## Irish Photo-Engraving Co.



Samples and Prices  
for every kind of  
Illustrative Work  
upon application.

Oriel House, Westland Row, DUBLIN.

"Has stood the test of a quarter of a  
century."

# THOMSON'S Vine, Plant, and Vegetable MANURE.

Only Medal,  
Edinburgh, 1886.



Gold Medal,  
Edinburgh, 1891.

The result of long Practical Experience. Unrivalled  
for all Purposes. This valuable Manure is  
yearly growing in public favour.

ALSO  
**THOMSON'S SPECIAL  
CHRYSANTHEMUM MANURE.**

Perfect Plant Foods.  
SOLD BY ALL SEEDSMEN.

Price Lists and Testimonials on application to  
SOLE MAKERS—

**WM. THOMSON & SONS, LTD.,**  
Tweed Vineyard,  
CLOVENFORDS, GALASHIELS, N.B.

## "A True Plant Food."

GIVES IMMENSE INCREASE IN CORN, ROOT,  
GRASS, FLAX, AND GARDEN CROPS . . .

The ONLY form of NITROGEN that feeds the  
Crop immediately it is applied.

# NITRATE . . OF SODA

Can be bought of all Leading Dealers  
in Manures.

Pamphlets and information Free on application to  
**JOHN SIMPSON**, at the Irish Office of the

**Permanent Nitrate Committee,**  
15 Lower Sackville Street,  
DUBLIN.



# IRISH GARDENING



A Monthly Educational Journal devoted to  
the Advancement of Horticulture in Ireland



## A Little Sermon.

By CHAS. H. CURTIS, Hon. Secretary, National Sweet Pea Society.

I HAVE had a "call"—a call from Ireland—and the "call" is to spare a half-hour and write a little "sermon" on the delights of Sweet Pea cultivation. The call is irresistible since it comes from Ireland, and from one before whose profundity I once bowed in the Birkbeck Institute.

The delights of Sweet Pea cultivation are known only to those who are enthusiasts, for, slightly altering Dean Hole's famous phrase, "those who would have beautiful Sweet Peas in their gardens must have beautiful Sweet Peas in their hearts." The delights are increased according as one digs deeply, waters freely, feeds judiciously, stakes firmly, mulches liberally, and cuts flowers abundantly.

It is delightful work inspecting the catalogues of new Sweet Peas; and what does it matter if the descriptions do not quite tally with one's mental and visible notes? Perhaps we are a bit colour blind. Then there is the pleasure of sending the order and of anticipating its fulfilment. We try to look pleasant when we learn that the variety we most particularly wanted is "sold out," or even when we find there are only ten seeds for a shilling. Seed-sowing is vastly interesting, but we soon learn that the pleasure is not all ours when one morning we discovered that birds or slugs have had a feast, and it invariably happens that the newest varieties suffer the most.

But why detail all the pleasures of cultivation? If you know them not, then hasten to procure

Sweet Pea seeds, and your joy shall be full—with a trifle of trouble and a dash of disappointment perhaps to season the dish withal. It is at flowering time that one experiences the full tide of pleasure. When the butterfly blossoms sit lightly in their thousands over row or clump, and their delightful fragrance pervades the whole of the garden, one feels that labour has

not been in vain. How we admire the poise and shape of the blossoms, the stoutness and length of the stems, and how we talk of our "fourers" and "fivers," and how we get to love some of these dainty varieties!

The delight consists not only in our possession of beautiful and fragrant flowers in abundance, but in being able to give them away. It is wonderful how the ladies come to know one is a Sweet Pea enthusiast; nay, one of the pleasures—and it is not the least—is that one is able to give these floral gems to brighten a hospital ward, to relieve the tedium of a sick room, to sweeten the homes of the squalid, to deck the dinner table, to fill a bride's bouquet, and

may be to provide a last token of love for those who rest in God's Acre.

A fiercer pleasure comes when successful cultivation leads us to enter the show tent or hall, and put our flowers against those of other enthusiasts. We first of all join the National Sweet Pea Society, devour its "annual," try to enthuse all our friends with a love of Sweet Peas, and then we bear their congratulations meekly when we bring home a third prize. But if we



Chas. H. Curtis.

[Kindly lent by the Editor of the *Agricultural Economist*.]

win a silver medal, then our pleasure is great, and we aspire to gold medals and champion trophies.

Ireland, with its moist climate, should be able to grow Sweet Peas that will rival those produced in Scotland and Wales, let alone those of English growth. So, "finally my brethren," my precept is "no gains without pains," and the promise is "no pains without gains." May you all have the pleasure of growing Sweet Peas, showing Sweet Peas, and winning prizes, and when August 5th comes along "may I be there to see."



## Manuring of Crops.

IT is a well known fact that if we continue year after year to grow crops and sell them off the land the soil will become exhausted, and will eventually yield no crop whatever. If, on the other hand, we feed the crop to cattle, and apply their manure to the soil, it will continue to yield a crop. It is evident then that a growing crop takes something out of the soil, that there is only a limited supply of this something in the soil, and that if it be not replaced we cannot get a crop in future years.

Experience has taught us that if we apply farmyard manure, or certain substances which we call artificial manures, the soil will continue to yield a crop. Experience, however, has not taught us why this is so, nor how the manure gives us strong, vigorous plants, where without it we could only get weak and sickly ones.

The object of this article is to endeavour to make clear to those readers of IRISH GARDENING who havenot already had an opportunity of studying the matter the "reason why" plants require manure, what are the substances contained by the manure which are of use to plants, and how plants make use of these substances when they do get them. Knowing these things we are in a position to better understand the requirements of the different crops we grow; we know what the plant wants, and can supply its wants; and, further, we can avoid waste by avoiding to give it what it does not want.

Now, to thoroughly understand the science of manuring we must first grasp several facts, viz. :—

- (1) That the plants comprising our crops are alive, and that being alive they require food.
- (2) That part of that food is supplied by the soil, and is taken in in a liquid state by the plant through its roots.
- (3) That part of the food is supplied by the air, and is taken in in a gaseous state through the leaves.

The food that is got from the air is supplied in the form

of carbonic acid gas. When wood or coal is burnt this carbonic acid gas is formed, and rises into the air; animals also are constantly breathing it out. In the vicinity of large towns the air contains more of this gas than in the open country, but even the purest air contains enough and to spare for the use of plants. Air is constantly passing into and out of the leaves of plants, through the numerous small openings in the skin of the leaf, and while it is inside the leaf the carbonic acid is gradually extracted from it and manufactured by the plant into starch and sugar, which are food for plants, just as they are food for animals. This manufacture of food from the air only goes on, however, while the plant is in the light. It is evident then that so long as the plant gets light there need be no fear of its starving for want of the food which it gets from the air.

We will now turn our attention to the food which is got from the soil. We have already stated that the food is taken in through the root, and that it must be in a liquid state—i.e., it must be soluble in water. If we examine the root of a plant under the microscope we can see at once why it can only take in liquid food. The root and stem of the plant are divided up into a large number of very small compartments or cells (see drawing), and it is evident that, thin as the wall of these cells are, no solid substance, be it in ever so fine and powdery a state, could pass through them. Water, however, can soak through them, just as it would soak through a piece of paper. Salt in its solid state could not get inside the root of the plant, but salt dissolved in water could get in, and could pass from cell to cell until it had reached the stem and leaves of the plant. Nitrate of soda, which is a white, solid substance like salt, and which contains a large quantity of plant food, could not get inside the root, but if we dissolve it in water it can pass in with the water, can pass from cell to cell, and nourish the plant. If the nitrate of soda were a substance like sand, which will not dissolve in water, it would be useless as a manure, because, although it contained plenty of plant food, the plant could not make use of that food.

As a matter of fact in most soils there is a very large store of plant food, but very little of the soil is soluble in water, so that the plant may starve in the midst of plenty, the food being locked up, so to speak, in the soil.

Having got thus far we would now like to know what this plant food, of which we have been talking, is composed of; in fact, if we wish to know how to feed our crops properly we must know what they feed on. To answer this question we will first draw on our experience. Experience has taught us that farmyard manure supplies the want of our crop. Now, by applying farmyard manure we are simply returning part of the crop to the land again; or, in other words, this year's crop is simply feeding on the remains of last year's. We must then find out what the crop itself contains, and to do this we enlist the services of the chemist, who, after putting them through a number of complicated processes, tells us that all plants, be they oats or turnips or potatoes, can be broken up into a number of substances quite different in appearance from the plants themselves. The chief of these substances are—carbon, water, nitrogen, phosphates and potash. Some of these substances we are familiar with, others are but names to us, and, except we are prepared to make a study of the science of chemistry, must remain but names to us.

We know that a plant must contain carbon, because if we burn it we are left with a heap of black ashes. Only a small part of the carbon has been left however; the rest has escaped into the air in the form of carbonic acid gas. We have already seen that the plant can take carbonic acid gas from the air, so it is evident that there is no need to add carbon to the soil.

The water, as we have already seen, is taken in—sucked in so to speak—from the soil by the roots of the plant, and this water takes in with it in solution the nitrogen phosphates and potash, together with certain

other substances which are not of so much importance for the life of the plant.

Nitrogen, phosphates and potash are all contained in farmyard manure, but the farmyard manure must lie in the soil some time before they become soluble in water, and, therefore, available as plant food. Nitrogen is also contained in the "artificial manures," nitrate of soda, and sulphate of ammonia, and as these are readily soluble the nitrogen becomes available almost immediately after they are added to the soil. These are what we term quick-acting manures.

Phosphates are contained in bones, but in this form are practically insoluble, and become "available" very slowly. In dissolved bones—i.e., bones dissolved in strong sulphuric acid—the phosphates are soluble in water, and become "available" very soon after application. The phosphatic manure in most general use at present, however, is superphosphate, which is prepared by grinding up rocks known to be rich in phosphates, and dissolving the ground rock in sulphuric acid. In this manure the phosphates are readily soluble. Potash is contained to a large extent in wood ashes—indeed it was due to this fact that the substance got its name when it was first separated out by chemists. Of late years, however, there have been found mineral substances, resembling rock salt, which contain a large quantity of potash. The principal source of these minerals at present is the Stassfurth mines in Germany, and the mineral most used as a potash manure in this country goes under the name of kainit. Muriate of potash and sulphate of potash are got by purifying the crude minerals; they contain a much higher percentage of potash than does kainit.

In conclusion then we have learnt :—

That plants require food.

That part of this food is got from the air, and part from the soil.

That there is no danger of the plant running short of the food which it gets from the air, but that there is a great danger of its running short of the food supplied by the soil.

That the food supplied by the soil must be dissolved in water before it can be taken in by the plant.

That there is generally plenty of plant food in the soil, but that very little of it is available for the use of plants.

That the food supplied by the soil consists chiefly of nitrogen, phosphates and potash.

That these substances can exist both in a soluble and an insoluble state, and that if supplied in the latter state must become soluble before the plant can make use of them.—A. C. C.

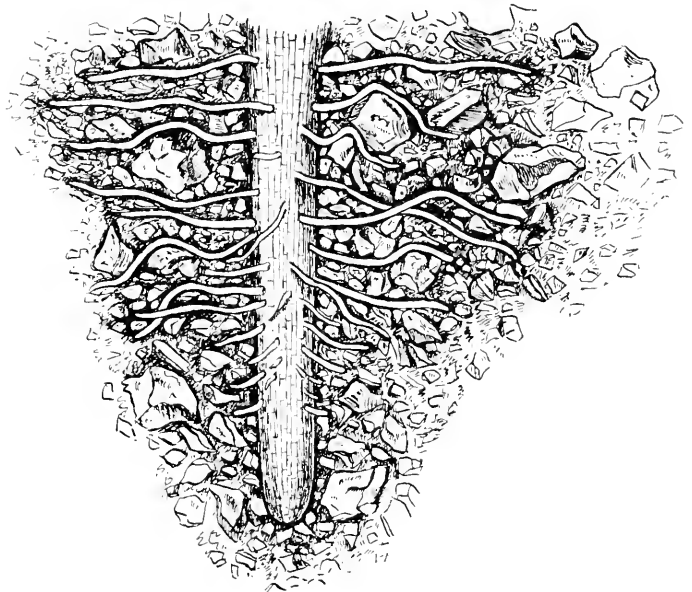


"THE poet makes a statement, and lo! in succeeding years or ages the man of science makes discoveries that prove its truth. The practical gardener is often to some extent a practical poet also, and he actually feels by the higher instincts of his nature what is best under any given set of circumstances for him to do. And then again comes on the chemist or the physiologist, and it is they who prove the gardener's actions to have been right ones."—F. W. Burbridge.

## Notes and Abstracts.

By G. O. SHERRARD.

**SCHOOL GARDENS.**—The Report of the English Board of Education (1906-07) gives some interesting figures showing the remarkable increase which has taken place in the teaching of gardening in the public elementary schools in England. Special grants are made to encourage the teaching of this subject in the schools, and the number of boys for whom grants were paid was 11,216 in 1905-06, compared with 8,359 in 1904-05 and 5,695 in 1903-04. The number of schools which applied for this grant in 1906-07 was 900, compared with 371 schools which obtained grants in 1903-04. With one or two exceptions, every county in England has school gardens attached to a certain number of its rural elementary schools. If the county has a horticultural lecturer, he organises the school gardens in his county and advises the school teachers as to the methods of teaching horticulture. In Staffordshire there are 98



The Root in relation to the Soil.

The illustration shows the end of a living root of *Pentstemon in situ*. The tip is the "growing point." Immediately behind is the "elongating region" that pushes the tip downwards through the soil, and behind that again is the region thickly covered with delicate tubular "hairs." These hairs are the chief organs by which water and dissolved foods are taken in by the plant. Note that the hairs are closely applied to the particles of soil, as it is from these particles that all the moisture is obtained.

and in Surrey 79 school gardens already established. Evidence continues to be received of the useful effect of gardening on the general work of the school. It is advised that school gardening should be especially dealt with as a branch of nature study.

**A BEAUTIFUL NEW ANNUAL FLOWER.** C. Prentice, *The Garden*, March 14th, 1908.—An annual with the unweildy name of *Dimorphotheca aurantiaca* is strongly recommended where a brilliant mass of colour is desired. The plant is described as being neat and bushy in habit and from 12 to 15 inches in height. The flowers, which are orange yellow in colour, somewhat similar to those of the *Gazania*, are said to be produced in great abundance, and the blooming period may be prolonged into the autumn by removing all faded blossoms. The plant was catalogued last spring by Messrs. Barr and Sons, Covent Garden, as a new introduction.

**THE ORIGIN OF THE POTATO.** Chas. Druery, *The*

*Gardeners' Chronicle*, March 7th, 1908.—In an interesting article Mr. Druery discusses some experiments conducted by Mr. A. W. Sutton with various wild species of tuber-bearing *Solanums* allied to the potato of commerce. These experiments were conducted with a view to finding out which wild species had given rise to the common edible potato, and also to increase the resistance to disease of the edible potato by crossing it with a suitable wild strain of greater vigour. Various species were grown, including *Solanum maglia*, *S. famosii*, *S. fendleri*, and *S. tuberosum*; but, after a number of years trial, these were proved practically worthless, with the exception of the last named. *Solanum tuberosum* was received by Mr. Sutton from the Cambridge Botanic Gardens about twenty years ago, and was then considered to be a wild species of Chilian origin.



## Hardy Annuals.



**HARDY ANNUALS** give great satisfaction to the grower. They are easy of culture and not particularly exacting as to situation; the flowers are quickly formed, and are produced not only in abundance but with

much beauty of form and great brilliancy of colour. Their uses for decorative purposes are manifold—some are short, even to dwarfiness, and these may be used as an edging for beds and borders; while others are tall and broad-leaved, and may be pleasingly utilised as screens to hide unsightly objects. Then again we have those of trailing habit for the drapery of rocks or fast-growing climbers for covering poles or trellises, while the rank and file may be used to fill up any bare spaces of ground in bed, border, or margin of shrubbery. What is more delightfully refreshing than a border of either night-scented Stock or of Mignonette in full bloom, especially in the cool twilight that succeeds a warm summer's day? While as to colour, those who have grown broad masses of the Californian poppy (*Eschscholtzia*), or of *Lavatera trimestris* know with what richness in this respect nature has endowed these hardy garden annuals.

Sowings of hardy annuals may be commenced at once, or as soon as weather and the condition of the soil will permit. For successional display of flowers intermittent sowings may be continued on until the end of next month. The majority of annuals love an open, sunny position, although there are some, like Forget-me-Nots, that prefer partial shade. To get the best results possible the plants must, of course, be grown under good conditions as to site, soil, and general culture. The soil is very important. First—assuming that the drainage is right—the soil must be deeply dug and well pulverised, so as to allow freedom of growth for the roots, as the extent of the development of the shoot-system above ground depends upon the extent of the development of the root-system under ground. Furthermore, the presence of organic matter in the soil is a great aid to these rapidly-growing plants, as, in

addition to other advantages, organic substances hold moisture, and therefore tend to prevent temporary checks to growth during intermittent spells of drought. For this reason therefore, when digging the ground, well-rotted manure should be liberally added and thoroughly intermixed with the soil.

To secure rapid and uniform germination the surface soil must be fined and made level. As the seeds of many annuals are small, a rough, carelessly prepared seed-bed will occasion the loss of many seeds and seriously handicap even those that succeed in germinating.

Purchase the best seeds, and sow thinly and evenly over the surface; then lightly cover with sifted soil. Press the soil down with the back of a spade so as to bring the seeds into close contact with the soil particles. This will check loss of water and also encourage rapid germination. It will be a further advantage to use short branches of evergreens for shade until the seedlings appear. Should the soil show a tendency to cake, lightly cover the surface with sand or finely-riddled litter. A caked soil is fatal to seedlings, as it seals the surface and prevents that free interchange of air between soil and atmosphere so necessary to healthy breathing of young roots. If watering is found needful use a fine rose.

Remember to mark the position of groups by means of named labels on which the date of sowing is noted. Keep a watchful eye on the beds, and destroy weed seedlings as soon as they appear.

The next point is one of much importance. The individual plants must be given room enough to develop to their full size. This is too frequently neglected. The seedlings must be intelligently thinned, and rainy weather or a sunless day is the most suitable for the work.

Some annuals (poppies for example) cannot bear transplanting, but others can. Of those that can, many may be transplanted even with advantage, as in the process of pricking out the taproot is broken, and this induces the formation of a number of strong laterals, so that the absorptive apparatus of the plant is in consequence actually increased in size.

In sowing annuals in beds or borders the relative heights of the mature plants must be considered. The tallest-growing subjects will be placed, of course, at the back of the border or in the centre of a bed, while those of lower habit will be kept nearer the edge. Colour, too, must be considered, so that the subsequent display will be one of pleasing harmony, or else a series of monochrome effects produced by sowing broad stretches of yellow, white, red, blue, or other one-colour flowers. To secure as long a continuance of bloom as possible it will be well to prevent the formation of seed pods, as in all annuals the death of the plant rapidly succeeds the ripening of fruits. The production of seeds is the final act in the comparatively short life of these plants.

As to selection of the kinds of annuals to sow there is a wide and varied choice. We need do little more than give a list of those genera that are among the best for garden decoration. Fuller particulars as to varieties, height, colour, &c., may be obtained by consulting the catalogues of the leading seedsmen.

The following are good:—*Bartonia* (*B. aurca* best), *Calliopsis* (or *Coreopsis*), *Candytuft*, *Centaurea* (includes Corn flowers and Sweet Sultan), *Chrys inthemun* (annual) *Clarkia* (best is *C. elegans* and its varieties) *Collinsia* (*C. bicolor* thrives well in towns). *Eschscholtzia* (Californian poppy) *Godetia*, *Gypsophila* (*G. elegans* the best), *Kochia* (Summer Cypress), *Lavatera* (*L. trimestris* is the best), *Lupins*, *Mignonette*, *Nasturtium* (*Tropæolum*) *Nemophila* (*N. insignis* the best), *Nemesia*, *Nicotiana* (Tobacco), *Nigella* (Love-in-a-Mist), of which *N. damascena* is one of the best, *Phacelia* (*P. campanularia* the best), *Phlox*, *Poppy*, *Saponaria* (*S. calabrica*, good), *Stock* (sweet scented), *Sunflower*, *Sweet Pea*, *Sweet Alyssum*.

# Economic Brevities.

By "SPICY."

## First Series—Spices.

**THE CLOVE** (*Eugenia caryophyllata*; natural order *Myrtaceæ*).—This very common spice is a native of the Molucca Islands, in the East Indies, where from the earliest records it was produced in quantities, but not until about 1500 did a European nation—the Portuguese—discover the country where it was grown. The Dutch possessors of the Moluccas for a long time held a strict monopoly over the produce of their islands, and it is said that they confined the cultivation of the clove tree to one island only—Amboyna. Later on they became less strict, and plantations were found in the neighbouring islands. This spice is now largely grown in Penang, Zanzibar, and in the West Indies, &c., but the best varieties come from Penang. Cloves, as we know them and use them in our apple pies and tarts, are the dried, unopened flower buds of the tree. These buds, which would eventually become the flowers, are borne on short, jointed stalks at the very extremities of the branches, and when gathering time comes the natives go through the plantations with long bamboos, beating the branches or shaking the trees. The buds, which fall very easily, are collected in cloths placed under the trees, and dried in the sun. When gathered thus they are green, but turn brown when dried. Cloves are capable of absorbing a very large quantity of water, and it is needless to say that growers avail themselves of this fact, as the good are always sold by weight. Cloves, and clove stalks also, contain a large proportion of oil, used largely by soap-makers, perfumers, in medicine, &c.; and though this oil is usually procured by distillation, it can also be obtained by pressure of the newly gathered buds. This naturally renders these pressed cloves of little value, but they can easily be detected when mixed with the good ones by their lack of flavour and pale colour. The name "clove" comes from the Latin "*clavus*" meaning a nail. In the year 1905, 136,724 cwt. of cloves, of the value of £287,073, were exported from Zanzibar. The greater portion of these were exported to India, and nearly £35,000 worth came to the United Kingdom.

**NUTMEG** (the seeds of *Myristica fragrans*).—This spice is also a native of the Moluccas and other islands in the East Indian Archipelago. It has been introduced into Mauritius and South America, &c. The fruit is rather like that of a small peach, the one coat of which is about half an inch thick. This is edible, and when ripe bursts and discloses two spices—one the mace, and the other the nutmeg.

The mace is a very fine net-work of a red colour, which surrounds the dark, shining shell of the nutmeg. This thin net-work is partially dried and carefully packed in bags. If dried too much it is liable to break in

packing. When bought it is more like a very thin, light-brown leaf, and a "little leaven leaveneth the whole lump." The nutmeg is surrounded by an extremely hard shell, and in order to obtain the kernel from the shell the nut is dried until the kernel shrinks sufficiently to allow it to rattle; then the shell can be easily broken, and the kernel, seed, or "nutmeg" extracted. The "nuts" are then put through several processes of soaking and drying to preserve their flavour before packing for exportation. More than one variety of nutmeg is grown. One known as the "Royal" is a large fruit, and produces mace longer than the nut; in that known as the "green," the mace is only about half the length of the nut. Nutmegs are used as a spice, but also in medicine. During the year 1904, 433,432 lbs. of nutmeg and 155,560 lbs. of mace were exported from Java.

**GINGER** (the dried roots of *Zingiber officinale*).—This plant is a native of the S. E. of Asia, but was very soon naturalised in America after the discovery of that country. The plant is now largely cultivated in the West Indies, especially in Jamaica. Two forms are known in the markets—the black ginger and the white; the difference only lies in the method adopted for preparation. These roots are dug up at the end of the growing season, and for "black" ginger they are scalded in boiling water and dried in the sun, but for "white" ginger they are scraped and dried without being scalded. For the very excellent preserve—perhaps the best all-round preserve made—the roots are dug early in the growing season, and carefully peeled, scalded and washed. They are then put into jars, and on them is poured a syrup of sugar. After two days this syrup is removed, and a slightly stronger one poured on, and this is repeated a third time, after another two days, before the ginger is considered fit for use. *Zingiber officinale* is very largely cultivated, and is always produced by negative methods, and the plant has now become almost quite sterile, and flowers and seeds are very rarely seen.



Summer Cypress (*Kochia*).

flowers and seeds are very rarely seen.



**ICELAND POPPIES** (*Papaver nudicaule*) are now much liked for indoor decoration, their charming colours and elegant form appealing to refined taste. They are also useful for outdoor effect, and can be grown with little trouble or outlay, and when used as bedding subjects can be freely cut. I have found it a good plan to sow the seeds where they are to bloom like hardy annuals. The beds ought to be in a sunny aspect, well prepared over winter, and made quite fine before sowing. This can be done early in April. It is well to wait the chance of a showery time for sowing to ensure germination. Sow broadcast and thin the seedlings to regular distances. As the plants will not develop fully the first season they must not be thinned to a too great distance, so that they can "furnish" over the ground properly. Five or six inches apart is not too small a space, but the exact distance will depend on the richness of the medium in which they grow.

JAMES BRACKEN.

## School Gardening.

By L. J. HUMPHREY, Special Instructor in School Gardening under the Department of Agriculture and Technical Instruction for Ireland.

THE love of art equally with the love of nature can be planted in a boy's mind by a judicious teacher of gardening; the graceful forms of plants, their varied but harmonious colours, can be pointed out in nature, and an endeavour made to copy what is most suitable for the garden. It is of course impossible for any teacher, however willing, however tasteful, to give to all the pupils a love of the beautiful, yet a great deal could be done with some of them, and something at least with all. An experience which is all too common is to visit a locality renowned for its scenery and to find that many of the inhabitants are indifferent to its charms, while others become each day more endeared to them, and not seldom this lack of appreciation could have been avoided by pointing out to those who are indifferent how each light and shade make a scene beautiful, how each plant, each stone, does each its part in building up the whole, and nowhere could a better beginning for such teaching be found than in the garden where every plant is distinct and can be pictured, examined and compared with its fellows at will.

By means of the garden the spirit of local patriotism can be aroused; each pupil will be anxious to make the garden at his school the best, and an effort at co-operation in working the garden will show how much can be done by this means. All this must in the future tend to make the men good citizens, who can instil into the men of the future the lessons which the garden has been instrumental in teaching them.

To ensure the good health of both teachers and scholars a garden is almost essential. The too often crowded and ill-ventilated class-rooms will render even the strongest constitution liable to colds, chills and sore throats, which are ever ready to attack both teachers and scholars whose vitality has been lowered by the vitiated air of the class-room. Just what a difference regular work in the open air would make to the health of teachers and scholars in this country cannot be properly gauged, but that the difference would all be on the right side few will be found to doubt.

There yet remains in many parts of the country a prejudice against manual work, and particularly when the work makes it necessary to come in contact with the soil, and this prejudice could be very largely removed in a few years if the children, following the example of the teachers they respect, worked in the garden, and were thus taught to realise the dignity of labour. Once embarked on a course of gardening the enthusiasm of the children, the interest the plants would arouse, and the rivalry created, would carry the work through to a successful conclusion.

For the teacher, as for the scholar, the garden should possess a constant interest; the ever-changing variety in the garden, the influence of the seasons, should provide material for object-lessons, for talks with the children, for attracting the attention of the children to the beauty of their surroundings, and so to instil a love of the country and a liking for plant cultivation into the mind of every child, and which love is the beginning of the truest patriotism.

On the boys' plot carrots and French beans may be sown, and in the seed beds sowings of cabbage and broccoli should be made. It is well to have plots of lettuce ready for transplanting when opportunity offers, and for this seed should be sown at intervals of about a fortnight. If the celery trenches are got ready early, radish may be sown on the ridges. Spinach should also be sown this month. In the flower borders further sowings of annuals should be made; any of the earlier sowings of which the plants are sufficiently advanced should be thinned in order that bushy plants may be produced.

## The Cottage Flower Garden.

WHAT a pleasing feature to see a cottage having its walls adorned with climbing plants and its small but neatly kept flower plots ablaze with colour! In this age, when the housing of the working classes is having careful consideration, and the unhealthy mud cabins are being rapidly replaced by up-to-date sanitary dwellings, with acre or half-acre allotments, it behoves householders to bestir themselves by doing their part in beautifying their homes. I can say without hesitation that during the past few years horticulture has made rapid progress amongst our Irish cottagers. The District Councils have also done a good deal for its advancement by offering prizes for the best kept and neatest gardens and cottages; yet we find some still very backward. Some cottagers have an idea when they have their plot or allotment fully stocked with potatoes, cabbages, &c., that all is complete; but this is not so, as no cottage should be without its share of flowers, no matter how few. Anyone who has not as yet got some ground in preparation for annuals or other flowers can do so in the present month, and a good foundation can be laid for a show of bloom during the summer. Should space be limited a border can be arranged on each side of the entrance; two and a half feet from foot of wall will suffice for this. Commence by taking out five or six inches of the surface soil. When this has been completed, dig the remainder to a depth of one foot at least. If the soil be light in texture an addition of good loam, with some well decomposed farmyard manure well forked in, will improve its condition; if of a stiff, clayey nature it will be benefited by adding some leaf-soil, with a mixture of old mortar rubbish or road-scrappings. The appearance of the border will be improved by raising it somewhat higher than the entrance. Should the cottage be in any way damp it is better to form the border on the level. The border is now ready to receive its climbing plants; of these we have many to choose from, annual and perennial. In the annual section we have *T. canariensis*, better known as Canary creeper, fringed yellow flowers; also tall nasturtium (*Tropæolum majus*), a rapid and pretty annual climber, blooms continuously until cut down by frost. These are easily cultivated, and if grown against the walls, with the aid of cord, can be arranged into almost any shape. Should perennial climbers be preferred we have *Ampelopsis sempervirens*, a hardy evergreen, self-clinging creeper, which if it once gets a hold on a rough mortar surface will soon reach the top, and will require little attention afterwards beyond trimming; *Ampelopsis Vetchii*, another well known self-clinger, the foliage of which turns a beautiful red in late autumn. Then we have clematis in almost every shade of colour; *Kerria japonica*, a splendid climbing plant, with bright, green foliage and covered with orange yellow blossoms; *Jasminum officinalis*, the old, sweet-scented white jasmine, which should find a place in every cottage garden. In addition to these, there is the old and dearly-loved honeysuckle, and last, but not least, the climbing rose. The walls having been furnished, we can now consider what annuals to select. Dwarf nasturtiums make a very pleasing border, and are of easy cultivation. Empress of India is one of the best varieties; if thinned to at least fifteen inches they will make nice bushy plants. Candytuft is also a very showy annual, and if the plants are thinned to six inches apart will give a good return of bloom; Rose Cardinal, of a rich, deep rose colour, is a fine variety. *Saponaria calabrica*, a charming little annual, blooming almost continuously; height, six inches; but being of a spreading habit requires severe thinning. Then we have a universal favourite in the mignonette, whose fragrant perfume is always delightful.

P. MAHON.

The Gardens, Killeen Castle, Dunsany.



## Stonecrops.

EVERYONE must be familiar with our common wild stonecrop (*Sedum acre*).

Its creeping stems, covered with short, stout, fleshy leaves, and bearing masses of star-like, yellow flowers, are found almost everywhere throughout the country growing upon rocks and walls, clothing them with a rich drapery of green and gold. They may also form part of the carpet of vegetation covering sandy tracts (especially near our coasts) and other situations subject to intermittent spells of water famine. The stonecrops are great favourites in the rock garden, converting as they do things bare and unattractive in themselves into objects that arrest and fix the attention because of their simple and becoming beauty.

Why can these thrifty little plants succeed so well in dry places? If you carefully examine the root you will find that it shows three very distinct characters. It

is very slender, very much branched, and very long. The root, in fact, can enter any crack or fissure, and run along it to a great distance. These narrow spaces hold moisture for a long time, and the roots find in them a congenial home.

But that is not all. The amount of water required by a plant is regulated by the amount of water it loses by transpiration from the leaves. If the leaves transpire quickly the root must absorb quickly, and it will, too, if the water is at all obtainable. If transpiration slows down, absorption by the root slows down at the same time. Root and leaf work together. Now, the foliage of the little stonecrop is so constructed that it loses comparatively little water. You know that if one of these plants be plucked it can remain plump and fresh for a long time without any water at all. It can do this because it loses water so slowly. Why can a stonecrop resist drying up better than, say, a pansy? The reason is that its leaves are

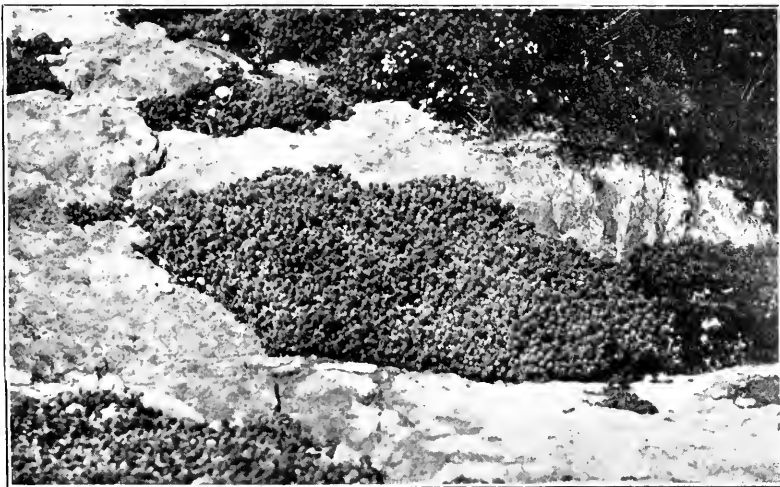
thick and full of sap, and that they are covered over with a glossy, waterproof covering of cork which effectually checks rapid transpiration. The plants can fill their cells with water when water is plenty and conserve it well when the water is scarce.

In growing stonecrops in gardens these peculiarities of the plant should be studied and remembered. Its fragile roots love to roam through a deep, open medium in which water can never remain stagnant. They sicken and die if the opposite condition prevails. Our success in the cultivation of any plant depends upon our ability to suit the artificial conditions to the natural needs of the plant.

Stonecrops have a common habit of growth,

but they offer some variety in details of general effect, especially in the colour of the flowers. There are over 100 species of sedums. The following short list may be useful:—

*Sedum acre*, so named because of the pungent taste of its shoots. (The generic name *Sedum* is



The Stonecrop (*Sedum acre*) at Home  
(Dublin Mountains)

a Latin word, the meaning of which may be expressed by the English word "squatting," in evident reference to its prostrate habit.) It forms when in flower, during June and July, very gay cushions in the rockery, and is especially effective when mixed with dwarf alpinists.

*Sedum album*.—The flowering stems, carrying white or pinkish white flowers, rise erect from the barren, prostrate shoots. It may be used to cover old walls or to form a decorative edging to flower borders, if the drainage is good.

*Sedum reflexum*.—So called because of its reflexed leaves. The flowers are yellow.

*Sedum Sieboldii*.—A Japanese form, and very distinct. The leaves are flat, instead of cylindrical and oval, and arranged in pairs or in threes on the slender stems. Flowers, pink or red in close flat heads. There is a variegated variety with a creamy white blotch on each leaf. This species can be grown in pots, and is often seen in the windows of cottagers in England. It looks well in hanging baskets.

*Sedum spectabile* (*S. fabaria*) is another Japanese species and a vigorous grower, flowering in September. The flowers are nearly half an inch across, pink and abundant. It will grow in sun or shade, and is excellent as a window plant or for hanging baskets.

## "IRISH GARDENING."

AN ILLUSTRATED MONTHLY.

OFFICES—53 UPPER SACKVILLE STREET, DUBLIN.

**Publishing Date.**—First day of each month.

**Subscription.**—3/- per annum, post free.

**Editorial.**—All Editorial Communications, copy, and photographs should be addressed to "The Editor."

**Business Communications.**—All letters regarding Subscriptions, Advertisements, and other business matters must be addressed to "The Manager."

**Wholesale Agents.**—Newsagents will please send their orders for Copies to either Messrs. Eason & Sons, Dublin and Belfast; Messrs. M. H. Gill & Son, Dublin; Messrs. Robb & Co., Belfast; or Messrs. News Bros., Cork.

**London Agent.**—Mr. G. Vickers, Angel Court, Strand, London.

**Remittances.**—Postal orders, cheques, &c., should be crossed and made payable to The Manager, "Irish Gardening."

## American Gooseberry Mildew in Ireland.

By GEO. H. PETHYBRIDGE, Ph.D., B.Sc.

**T**WELVE months ago—see IRISH GARDENING for April, 1907, p. 68—an article dealing with this fungoid pest was published, and a map given showing its distribution in Ireland as known up to that date. It was stated that the mildew had been reported in ninety-eight localities, distributed over nineteen of the thirty-two Irish counties. The present time is a convenient one for once more ascertaining the prevalence of this disease, and thus for gaining some insight into the rapidity of its spread. For the records, as in the previous year, I am mainly indebted to the Department of Agriculture and Technical Instruction for Ireland, which has devoted increased attention to the matter during the past year. The number of recorded cases of the disease has practically doubled during the year, standing as it does now at about one hundred and ninety-six, as compared with the previous year's ninety-eight. The number of counties in which infected localities now occur has increased by three—namely, to twenty-two. It must not be supposed, however, that the whole of this increase of ninety-eight cases represents the actual spread of the disease. The actual number of new cases, in which an attack was unknown before 1907, is fifty-seven. The attacks in the remaining forty-one cases began previously to 1907, but they were not included in last year's list owing to the reports not having come in early enough to be included. Very probably there may still be a few more cases than the one hundred and ninety-six at present recorded, but owing to the increased vigilance which has been exerted this number is likely to be a small one. As would be expected, the largest increases in cases have been in counties in which the disease was most prevalent before. Thus Co. Down still leads the way with an increase from nineteen to fifty-seven cases. Antrim has

increased from twelve to twenty-five, Waterford from nine to twenty-two. The counties with a large number of cases coming next are Tyrone and King's Co. with twelve each, Londonderry and Meath with ten each. No cases have as yet been reported from Carlow, Cork, Donegal, Leitrim, Limerick, Longford, Louth, Mayo, Monaghan, and Sligo. As some of these counties have, however, no instructor in horticulture from whom reports would in the ordinary course be received, it is possible that the disease exists unrecorded in one or more of them.

It is sufficiently evident that the disease is making rapid headway in Ireland, and that vigorous steps must be taken if its further progress is to be at all prevented. Where it came from in the first place is not definitely known, probably America, but whether directly or *via* England or elsewhere cannot be ascertained for certain, although at least one rather recent case in the South of Ireland can be traced almost with certainty to infected bushes from an English source.

The practical question, however, is not how the disease came here, but how it can now be stamped out; and not one whit too soon has come the order of the Department of Agriculture and Technical Instruction for Ireland dealing with this mildew and with the black currant mite, which was issued on the 24th of February last, and came into operation on the following day.

This Order is issued under the Destructive Insects and Pests Acts, 1877 and 1907 (see IRISH GARDENING, August, 1907, p. 144), and is too long to be quoted *in extenso* here; but all who have gardens containing gooseberries and black currants (and what garden has not at least a few?) should obtain a copy of it by writing to the Secretary of the Department, and should make a careful study of it.

Fundamentally the Order does two things. First, it prohibits the importation (after April 30th, 1908) into Ireland of any gooseberry or black currant bushes, except for certain special purposes, and then only by licence. By this means further introduction of diseased bushes from England or abroad will be rendered impossible. Secondly, the Order compels notification of the disease by the owner or occupier of premises or land where it exists, or is suspected of being present; and further, the Order indicates the compulsory measures which will have to be taken by the owner or occupier for the prevention of the spread of the disease and for its extinction. Failure to comply with the terms of the Order carries with it liability, on conviction, to a penalty not exceeding Ten Pounds (£10) for each offence, and in this connection it may be noted that already in one case the maximum penalty has been inflicted in



England, where an analogous Order issued by the Board of Agriculture and Fisheries has been in force for some time.

The Irish Department are also issuing a revised illustrated leaflet dealing with the mildew which should be in the hands of every one who has a garden, and by means of which the disease can easily be recognised.



THE fourth annual show of the Kilkenny Horticultural Society is announced for the 21st of July. The schedule promises good classes for sweet peas, roses, herbaceous plants, small fruit, and table and decorative plants. An interesting innovation is to take a plebiscite note on the table decorations instead of judging in the ordinary way. We wish this energetic society the fullest measure of success; its exhibits are always good and the competitions keen. The secretary is Mr. S. A. Jones, F.R.H.S., Gowran.



DURING the gales of the early part of last month a large thorn tree growing at the residence of Mr. Cunningham, Glencairn, Belfast, was blown down. Its trunk was three feet in circumference at three feet above the ground. It grew 40 feet high and with a clean stem of 15 feet to where it threw out branches. Last year it had few flowers owing to the season being unfavourable, but the previous year it was a mass of bloom.



At the Downham (Norfolk) Police Court, on the 2nd ult., a fruit-grower was fined £10 for having on February 14th failed to adopt such measures for the prevention of the spread of the American gooseberry mildew as are specified in a notice served on him under article 6 of the Order of the Board of Agriculture and Fisheries.



## Royal Horticultural Society of Ireland.

As will be seen from our advertising columns the spring show of this society will be held on Wednesday and Thursday, 8th and 9th April, in the Royal University Buildings, Earlsfort Terrace, and promises to be a very successful event. Several fresh items have been arranged for this show, including evening lectures by Prof. Carpenter and F. W. Moore, Esq., on subjects connected with horticulture.

The marked improvement in recent shows held under the auspices of the society is very gratifying, and the present seems an opportune time to make an effort to increase the membership of the society and the interest of the general public in it. A committee has been appointed with this object in view, and it is hoped that the year 1908 will witness a large accession of members to the society, which by its invaluable work in the promotion of the cause of horticulture deserves every encouragement and support from all who interest themselves in gardening.

Facilities will be afforded at the show at Earlsfort Terrace for enrolling members, and full particulars, conditions of membership, &c., can be obtained from the Secretary, Walter Keating, Esq., 5 Molesworth Street, Dublin, who will also be glad to forward nomination papers on application.

## The Shamrock.

By R. LLOYD PRAEGER, B.A.

AS to what species the original plant may have belonged which St. Patrick, according to the legend, used to demonstrate the doctrine of the Trinity, nothing is known nor can be known. The story has not come down to us with any details attached which might enable us to say which of several plants, very similar in appearance, the Saint actually employed. All we can do is to enquire what species is at the present time considered by the Irish people to be the true Shamrock; and so conservative is lore which is passed down from one generation to another, that it is probable that the plant now held to be true Shamrock is the same species as was called Shamrock many centuries ago. The question as to the identity of the Shamrock has been carefully investigated by Mr. N. Colgan, M.R.I.A., and his results published in Vols. I. and II. of the "Irish Naturalist." He finds that two species, the White or Dutch Clover (*Trifolium repens*) and the Small Yellow Trefoil (*Trifolium minus*) are worn almost equally in Ireland on St. Patrick's Day as the national badge. Occasionally also the Red Clover (*Trifolium pratense*) and the Black Medick (*Medicago lupulina*) are used, but these would be held to be mistakes by the great body of people in this country. The issue lies between *T. repens* and *T. minus*, and although the result of Mr. Colgan's enquiry was that he received rather more specimens of the former than of the latter, there seems good reason to believe that small specimens of *T. repens* may have been mistaken for *T. minus*, and sent up as such. Mr. R. A. Phillips, writing from Cork, has argued strongly in favour of *T. minus*, and I am inclined to do the same as regards the Belfast district. Both of these plants are very common. As regards their recognition, this requires a little care. *T. minus* may generally be identified by its very small dark green leaves, not marked with dark blotches, and by the fact that all the slender branches spring from a single, slender, central root; it is an annual plant, bearing in early summer small heads of yellow flowers. *T. repens* is a perennial species, creeping along the ground, as its name implies, and, unlike the last, sending down at intervals a strong, wiry little root. Its leaves, even when small, are larger than those of *T. minus*, and each leaflet usually bears a dark purplish or brownish blotch; this is an abundant species with heads of white flowers in summer. *Medicago lupulina* may generally be easily distinguished from either of these by its paler foliage and downy appear-

ance, while the Red Clover is usually a much larger plant than any of the rest, with a very strong central root. In summer the seed of the former at once distinguishes it from any of the Clovers or Trefoils, and in the case of the Red Clover its big heads of red flowers do the same; but of course the difficulty lies in distinguishing the plants, not in summer, but in the immature condition in which they are in the month of March.

## Current Topics.

By PETER BROCK, Horticultural Instructor, Enniskillen.

THE chief topic is the American Gooseberry Mildew and Black Currant Mite (Ireland) Order, 1908. This combined proclamation with enacted penalties will doubtless lead to the speedy extermination of pests which have threatened the possibility of growing black currants or gooseberries for either pleasure or profit. Having regard to the possible development of the cultivation of these fruits on a commercial scale in many parts of Ireland, it is to be hoped that owners of infested bushes—which are worthless—will act promptly, and burn or adopt methods of dusting and spraying that will wipe out the condemned pests.

The following different opinions regarding a new winter spray fluid have recently come under my notice:—First the owner of some life-long neglected trees heavily coated with fog writes stating that “the apple trees were sprayed three days ago, but the moss has not yet begun to fall off.” Evidently, some people expect spray fluids—even if the trees are coated with moss like the back of a ditch—to act the mechanical part of scraper and brush. From what I have seen of the action of the spray fluid complained of I am of opinion that, if the trees had been previously scraped and then properly damped, a dose of patience and some rough weather would complete the cleaning. Another enthusiastic experimenter with the same fluid, who was anxious to ascertain by the smell what it was composed of, in his endeavour to get a good sniff from the freshly-drawn cork accidentally let it touch the top of his nose, which resulted in a well-developed blister forming within sight. This man informs me that this fluid makes the best winter-spraying mixture for dormant fruit trees he has ever used, as his trees (five weeks after spraying) never looked so clean. He further asserts that eggs which were plentiful before spraying have since nearly all disappeared.

Success in spraying with efficient fluid mixtures largely depends on how they are applied. For example, force is a factor second in importance only to the fluid used. Before commencing to spray it is essential that the pump and connections of the sprayer should be in perfect order, so as to deliver the spray under a high pressure—leaving the nozzle with a sharp whizz, and forming a white cloud-like mist that will thoroughly penetrate and damp or dew every crevice or particle of the object to be dealt with. There will doubtless soon be many endeavouring to stamp out American mildew by spraying with various formulas such as potassium sulphide, Cooper's V2 K, and sar. This being so, the chief object in view should be to keep the bushes in a non-septic condition by spraying early and regularly—say every ten days or at least within a fortnight—so that the mildew may get no footing. It is very disappointing to find after the crop has been gathered without blemish to more than an occasional fruit to find growers relaxing spraying. This neglect may permit the re-appearance of the mildew on the tips of the shoots, thus further prolonging the work of extermination.

## The Escallonias.

By J. W. BESANT, Royal Botanic Gardens, Glasnevin.

THE members of this, another genus of Saxifragæ, are shrubs mostly of South American and Chilian origin. Generally they cannot be considered quite hardy, though in many parts of Ireland, also South Wales, the south-west counties of England, and parts of the west coast of Scotland, satisfactory results attend the cultivation of, at least, some of the species in the open. In less favourably situated gardens good results are obtained by affording positions against south or south-west walls.

In common with any other plants worth growing in our gardens, no efforts should be spared to give the subjects under notice a good start. Although not at all fastidious as to soil, a good free loam will suit admirably.

*Escallonia exoniensis*, a hybrid of *E. rubra* x *E. philippiana*, is one of the hardiest kinds, as well as one of the most beautiful. It is a free grower, producing erect shoots bearing spikes of white flowers, which are produced successively on young growths throughout the summer and autumn.

*E. floribunda*, from the Ecuador region, is naturally somewhat tender for the ordinary garden. It bears leafy panicles of white flowers in summer, and might be tried in warm sheltered localities or as a greenhouse shrub.

*Escallonia illinita*, a Chilian species, is not unfrequently met with as a wall plant. The panicles of white flowers are produced at the ends of the branches, while the leaves and branches are sticky from the presence of a resinous excretion.

*E. langleyensis*, another hybrid, this time of *E. macrantha* x *E. philippiana*, is a fairly hardy sort, producing numbers of rosy red flowers on shoots of moderate strength, which bear small, sharp-pointed leaves. *E. macrantha*, from Chili, is also a fairly hardy sort, in many gardens growing vigorously, only presenting a somewhat scorched appearance during winter and early spring, a condition which quickly vanishes as the summer advances. The handsome, dark-green foliage is dotted on the under side, and the reddish crimson flowers are usually produced in abundance.

*E. montevidensis*, from Montevideo, produces erect, fairly stout shoots, clothed with rather long serrate leaves and surmounted by panicles of white flowers; a good wall shrub, and probably a handsome shrub under favourable conditions in the open.

*E. philippiana*, a Valdivian species, is excellent in beds and borders, and is successful in various localities; good beds of this species used to be seen near the palm-house at Kew. The flowers

are white, borne in panicles, and create a pleasing effect in July.

*Escallonia pterocladon*, from W. Patagonia, is a rather small habited species, producing numerous pink and white flowers and tiny leaves. It does fairly well, as a rule, when planted in a position sheltered from cold winds.

*E. punctata*, also from Chili, is a fairly hardy sort, producing corymbs of red flowers on somewhat erect shoots, which are clothed with glabrous green leaves, dotted on the under side; an ornamental shrub which will attain a height of six feet or more under favourable conditions.

*Escallonia rubra*, Chili, is occasionally met with on walls and in the open where suitable. The flowers are red, appearing in July. This is a rather fine species, and produces fairly large leaves which are plentifully dotted on the under surface.

There are several other species of *Escallonia* such as *revoluta*, *viscosa*, *pulverulenta*, &c., which doubtless have merits of their own, and should certainly be included by those who have facilities and suitable conditions.

An important point to be noted is, that the *Escallonias* begin to flower after the spring and early summer flowering shrubs are over, and thus extend the season, connecting up as it were with autumn flowering subjects. Propagation may be effected by means of cuttings, on a slight hot bed, or kept close and shaded under a handlight.



## Roses.

By O'DONEL BROWNE, M.D.

**D**URING recent years various horticultural shows have sprung up through the country, and since these have been in existence the quality of most of the exhibits have, I am glad to say, improved. These shows have given us two, at least, good lessons to learn—(1) to grow better flowers, (2) to be more ready to work at our gardens. There is a marked improvement year by year by some rosarians' exhibits, but there are others who have not taken the trouble to learn their lessons, and it is to the latter class that in the present article I want to write. The person I find that has not improved is generally in the so-called amateur (a wretched name) class; by this I mean those who do all the work themselves. Their exhibits are slovenly, put up anyhow, blooms of all ages, without any care or trouble. If it could only be once pointed out to these exhibitors how seriously it affects a judge's opinion to have nothing to say to their exhibit, or if it could be pointed out how badly their exhibit mars the whole look of the show, this careless arrangement of beautiful flowers would soon cease. The old adage, "What is worth doing is worth doing well," should be pinned on these eyesores of exhibits. Can it be that they only send flowers to help the show? If they only knew it, they are far from a help, but a hindrance. Is it that they have no eyes to see how others can manipulate flowers of the same quality, and make them look lovely? Where could you get finer stagers of flowers in the whole world than our Irish Nurserymen? Nowhere, and I have seen all the rose men stage. Now, amateurs please try and be tidy. No

one is asking you to stage stuff as good in quality as our larger growers—but *be tidy*. Just spend five minutes and watch any good grower at his flowers. He does not bring his cut blooms in a boot box—no, he brings them in water properly wired and cared for. You may ask why all this trouble?—they are not worth it, I hear you remark. Well—if this is your opinion—then stay at home, as you are only a nuisance and laughing stock to us; and we can enjoy a laugh! The person it most affects is the poor judge. From my heart I pity the man who has to judge really inferior quality blooms. It is quite easy to judge high-class roses in comparison to rubbish. There never yet was a judge who ever wanted to see a card on your box with "disqualified for untidiness" or some such remark on it; but I really honestly believe if it were once done it would serve its purpose. It is not such a great trouble to do a thing properly as it ought to be done, and is to the most of us a real honest delight. How often has it been said "So-and-So should have won if he had staged his flowers better." I am glad Mr. So-and-So was beaten, as he deserved it, and I hope he will be beaten every time until he does learn. How is it that a gardener with rough hands can so manipulate his flowers to make them appear better than yours? There is more than the hand in it; I am certain at the present time there are two men who really shine at staging roses, and it has often been argued in my presence as to which is the better stager. One of these men has the other at a disadvantage, inasmuch as he personally superintends the actual growing of the flowers on the trees, whereas the other man only sees the flowers ready to be staged for the first time in the tent. But when it comes to staging the last-mentioned man can usually pinch home by better staging. I should like to give them each a box of blooms of equal merit, and really see whether the cleverness lay in staging or in growth and staging. At all events a good deal depends on staging. I will try and tell you how it is done some time soon, but before I close let me ask you to go and study the exhibits at the April show of the Royal Horticultural Society. As the solicitors say, "you will see something to your advantage."



## Tuberous Begonias.

BEGONIAS as a cultivated race are relatively new to gardens. They have sprung up and obtained their present popularity within practically this generation. They stand in the first rank as bedding plants, and have in many places superseded the much used pelargonium for such purposes. They have a wider range of colour, endure longer, and can stand the effects of beating rains much better than the older favourite.

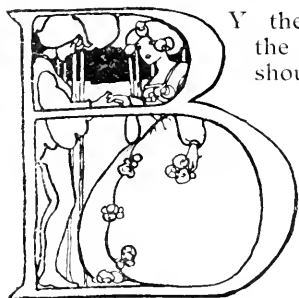
The present garden forms are the result of careful hybridising. The original species (about six) are natives of Peru and Bolivia, some of them growing at an elevation of 11,000 to 13,000 feet. With a single exception (*B. Pearcei*, which is yellow) all the wild progenitors of our garden varieties are red-flowered, yet these hybrid varieties have a range of colour from scarlet, crimson, and pink through orange and yellow to pure white, with innumerable intermediate shades.

The tubers are usually started in gentle heat in April, gradually hardened off, and planted out by the beginning of June.

They seem to grow best in a sandy loam intermixed with leaf mould. The soil should be previously well dug and manured with thoroughly decayed farmyard manure. After planting, it will be wise to mulch the surface of the soil with litter or with cocoa-nut fibre if litter is deemed too unsightly.

By keeping to one colour for one bed a glorious and continuous display can be secured throughout the summer months. For varieties the catalogues of up-to-date nurserymen should be consulted.

## The Herbaceous Border.



Y the time this appears, the herbaceous border should be looking interesting, especially where biennials and bulbs were used to fill up vacant spaces. No plants take the eye as much as our spring-flowering plants and bulbs.

Imagine a border during the present month dotted over with patches and clumps of daffodils, narcissus, early flowering tulips, wall-flowers, *Arabis alpina*, *Aubretias*, *Alyssum saxatile*, polyanthus, hybrid primroses, &c. What a bright display of colour they give at this season of the year, and all are so easy to grow; then you have the young shoots of the herbaceous plants pushing up through the soil, note the different colours of the shoots, changing day by day as they get inured to the light. It is a real pleasure to the lover of flowers.

Mark all clumps of daffodils, narcissus, and early flowering tulips that are intended to be lifted later on when the foliage have died down. Gladioli of sorts should be now planted to make a good effect; plant in clumps true to colour. All the hardy annuals should be planted where they are to flower in the border—sweet pea, sunflower, malope, &c., at the back of the border, the dwarf varieties of annuals to be sown nearer the front according to height and habit.

Ten week stock, aster, French and African marigold—seeds of these should be sown at once under glass, the seedlings to be transplanted (when fit to handle) to a frame or boxes. They will be found exceedingly useful to fill up gaps in the border when the foliage of spring bulbs has died down.

FRANK HUDSON.

## The Month's Work.

### The Fruit Garden.

By GEORGE DOOLAN, Instructor in Fruit Culture, Department of Agriculture.

**STRAWBERRIES.**—This important crop should have attention without delay, and where the plants have not been already mulched a dressing of half-decayed manure should be applied. The weather will wash and bleach the litter, so that it will be in a clean state for the fruit to rest on. Before putting on the manure, all weeds must be pulled and the ground made clean. Fill any blanks that may have occurred in the rows with plants from the nursery bed. Many growers are in favour of autumn mulching, and where the soil is

o a light nature, it is undoubtedly an advantage; but in case of heavy land spring mulching is the best; again, the soil can be kept in a cleaner state by the use of the hoe when there is no manure on the surface.

Fruit trees of every description growing in light land should have the surface over the roots mulched with good farmyard manure, and where trees are bearing well on heavy land, similar treatment is also beneficial. Currants (black), raspberries and gooseberries respond well when liberally treated. Apples making strong growth should not be mulched, because such treatment tends to make growth too luxuriant, and where there is too much wood there is little fruit.

**CROPPING THE GROUND.**—Where young trees are growing the spaces between the trees should be cropped with vegetables. Potatoes, cabbage, onions, parsnips, and almost every vegetable may be grown in such spaces. They serve to keep the soil in a cultivated condition, which is an advantage to the fruit trees. When tilling the ground care must be taken that the roots of the trees are not injured.

**INSECT PESTS.**—Cold north-east or northern winds are favourable to the appearance of the well-known aphid or green-fly, which often appear very early in the season, and do a lot of damage to young growths. Watch carefully for any indication of attack, which will be seen in the crumpled up state of the leaves at the growing points of the shoots. The great remedy is to take measures quickly to prevent further attack.

The following remedies may be safely used:—Quassia, chips, 2½ lbs.; soak in boiling water and leave rest for 24 hours, when the liquid should be drained off and put in a separate vessel; to this add 1 lb. soft soap dissolved in boiling water, add water to make 10 gallons of mixture, and spray with a fine syringe or a sprayer. Quassia extract can be got at the seedsmen's, which should be used according to directions. Tobacco extract is also effectual. Steep 4 oz. of tobacco in 1 gallon of water for 24 hours, and apply with syringe or sprayer.

**GENERAL REMARKS.**—When the weather is fine keep the hoe at work; it will make the ground clean as well as confer other benefits. Stake any trees needing support, and re-tie to stakes where necessary. Do not allow suckers to grow from the roots of plums, pears or apples. Have all prunings burnt. A striking feature of the fruit grounds at this season is to have the soil stirred up and clean, the trees mulched where they need it, and the ground in readiness for cropping.



## The Vegetable Garden.

By WILLIAM TYNDALL, Instructor in Horticulture, Co. Kildare.

**DURING** this month nearly every kind of vegetable requires to be planted or sown, and all plots and borders attended to. To the gardener this is probably the most important and *busiest* month of the whole year. Up to the present, except in very dry warm soils slow progress has been made in getting in crops, but a couple of weeks of good weather would do much to enable us to overtake the arrears of work now fast accumulating on account of bad weather.

Keep the hoe constantly going through all growing crops, as the more the surface is stirred the better and quicker is the growth. This work is especially needful in the case of spring cabbage and winter spinach, while to the latter a dressing of soot and wood-ashes will very much assist growth. Globe artichokes should be cleared of all rubbish used for protecting the plants during severe weather. The beds should then be manured and forked in, as in the case of the rhubarb plot. Plant out, if not already done, autumn sown cauliflowers, as well as those raised under glass in spring; also onions,

leeks and Brussels sprouts similarly raised. Take care that they are well hardened off before planting, so as to prevent too great a check on growth.

Make good sowings of peas and broad beans during the month, selecting the mid-season varieties given in the January number. Finish planting potatoes without delay. Two sowings of most of the following seeds should be made during April if (as is likely) the weather in March prevents sowing in that month,—cabbage, cauliflower, turnips, broccoli for succession as given in calendar, savoy, and broccoli or kale. About the middle of the month make a last sowing of leeks, and at the end of the month sow pickling onions.

**SEAKALE.**—Get all work connected with the planting of seakale finished as early in the month as the weather and condition of the ground will allow, so that the roots (if prepared as advised in a former number) will have a long season of growth to strengthen. If a stock of plants is to be raised from seed, select an open position in the garden, where the ground is fairly rich; sow in drills thinly, about 2 inches deep, the drills being from  $1\frac{1}{2}$  to 2 feet apart. When the seedlings are fit thin to about 1 foot apart. Clean away all material used for covering seakale to blanch where it is growing, to let the fresh growth come away strongly.

**ASPARAGUS.**—Get the beds ready for asparagus to be planted at once, as it is well to give it a short time to settle down before planting, which should if possible be done in mild, dull weather, as exposing the roots to drying winds and bright sunshine is often the cause of failure. The best time for transplanting is just as the young shoots come through the ground. Asparagus roots grow in a horizontal direction, therefore do not bundle them into a small hole, but open wide holes, so that the roots can be laid out having the crown about one inch under the surface. Plant firmly, pressing the soil with the hand about the roots and crown. Stake the young growths to prevent them being broken by wind. Two to three feet will be required between the rows and also between the plants in the row, leaving an additional foot between every three rows for attending to the beds for cleaning, cutting, &c.

**SALSAFY.**—This vegetable is now much liked, especially if the roots are straight, clean and without flower stems. Rich ground that will grow good parsnips and carrots will suit well, as manure near the surface causes the roots to fork and be of little value. Sow the seeds by end of the month in lines  $1\frac{1}{2}$  feet apart.

**CARROTS.**—In many gardens the carrots crop is little better than a failure, no matter how carefully the ground has been prepared, canker, maggot and wireworms being the great enemies. Deep digging and trenching does much to prevent severe attacks, but, in addition, dress your ground in the autumn with gas lime or, before sowing, with vapourites, and work it into the soil. Freshly staked lime and soot may be used with much advantage when preparing the ground and at the time of sowing. On heavy land burnt garden refuse and wood ashes are most valuable, and where wireworms and maggot are plentiful give a dressing in the drills opened for the seed. Make a couple of sowings at the beginning and end of the month, and where there is danger of the roots being attacked select quick growing sorts as Early Gem or Sterling Reliance. Stump rooted varieties in place of such grand, long varieties as St. Valery and Sutton's new Red Intermediate generally grown. Sow in lines  $1\frac{1}{2}$  feet apart, covering the seed an inch deep.

**LETTUCE.**—Plant out early lettuce plants as soon as fit, planting firmly in rich soil. To have a succession make a small sowing on well manured ground every two weeks, sowing the seed thinly in rows, covering with a net to prevent birds taking the seeds.

**BEANS.**—It is quite soon enough to sow by end of the month in the open border French and Runner beans, as if planted earlier either the seeds decay through cold and

wet or the grower finds the young plants killed by frost in May. No vegetable is more remunerative than Runner beans if the ground has been well prepared. Open a trench  $1\frac{1}{2}$  feet wide and deep, break up the bottom and fill the trench nearly to the top with well-rotted farmyard manure and good garden soil, equal parts. Sow beans in a single line 6 inches apart, and cover 3 inches deep. Best of All is a fine variety with very long pods. French beans for an early crop should be sown on a sheltered border facing south in rows in double lines, the beans 6 inches apart in the lines, the rows being 2 feet apart. Have the ground rich by digging in a good dressing of manure. Canadian Wonder is a good variety.

**CARDOONS.**—There are two methods of raising cardoon plants—by sowing in pots and placed on a mild hot bed where you have a cold, heavy soil, but be careful to plant out before they get pot-bound, and sowing direct in the open. Cardoons must have good treatment, therefore prepare open trenches, as for celery, one and a half to two feet wide, and deep; put in a foot of well-rotted manure, and at least four inches of soil over it. Sow two or three seeds together, at about two feet apart along the trench, thinning the plants to one when fit. In planting out those raised in pots, give two and a half feet between the plants in the row. In dry, warm weather cardoons take plenty of water, and once a week give a good watering with liquid manure.

**VEGETABLE MARROW.**—In many places this crop is very welcome, and more especially if marrows can be cut well in advance of the usual time. Of course, if frame culture can be given, it is easy to have early marrows, but few can follow this mode of growing them; so that we generally sow under glass, and afterwards protect with either handlights or boxes. Sow two or three seeds in 5-inch pots, close to the sides, and put in a warm frame, where the seeds germinate quickly, repotting and dividing the plants before they get large. If seed be sown this month and the plants carefully hardened they can be planted out about the middle of May. Protect with handlights, or failing these turn boxes without bottom or top over the plants, covering the boxes over at night with either sacks or mats to protect from frost. The sides of the boxes keep the plants from getting broken by wind.



## The Flower Garden.

By J. G. TONER, Horticultural Instructor, Co. Monaghan.

**CINERARIA** seeds to produce plants for early bloom may be sown during this month; a rather light compost should be used, the seeds sown thinly and very lightly covered. It will be well in the subsequent management of the young plants to put them directly into 3-inch pots from the seed pan.

Chrysanthemums now will be well suited in cold frames, and the re-potting must be attended to as necessary. This work will be very irregular, as the different varieties vary much as to rate of growth. The proper period for re-potting is not when the pots are quite full of roots, but when they are travelling freely round the ball of soil.

Provision for bright benches during late autumn and winter can now be made by sowing seeds of *Primula sinensis*; a nice mixture of leaf-mould and loam, with plenty of fine sand, will suit; sow thinly and regularly, as the seeds even in a brisk temperature do not always germinate evenly, and if regularity in placing the seeds is observed the more forward may be removed without interfering with the late arrivals.

*Primula obconica*, too, must not be forgotten, the rose coloured variety is both popular and useful; likewise *P. stellata*, which is very elegant, and it gives a lightness and freedom to mixed groups of plants not otherwise easily obtainable.

Put in cuttings of Zonal pelargoniums, three or four

around the edges of small pots. There are many beautiful kinds, being quite on a level with the sweet peas as regards range of colour. Where a temperature of 55 degrees can be kept up these may be had in bloom all the year round.

Azaleas now require great attention, as many will be in bloom or near that stage; they must be carefully watered, kept perfectly clean, and those that are in flower shaded from the sunshine, that may at least be expected. Plants of *A. mollis* that have flowered early will make good growth now if placed in a brisk, moist heat.

Bedding geraniums should be stood in pits or cold frames. Do not give over much water until they are accustomed to the new conditions. Let them have as much air as possible during favourable weather; sturdy, strong, and floriferous plants will result.

Begonias of the *Gloire de Lorraine* type may be propagated by cuttings, sometimes by leaves; the former method, however, is the better. If necessary some plants should be cut back for the purpose of producing a crop of cuttings; when selecting plants for this purpose the strongest and best should be picked for propagating, not, as sometimes happens, the weakest and worst.

Prick out seedling of tuberous begonias, pot on plants as may be found necessary, plant in five then into seven-inch pots, and so on. The flowering period may be controlled very largely according to the treatment given the plants. If early flowering is desirable, pot rather a little on the loose, and keep in a comfortable temperature; if late flowering is preferred, or if plants in full bloom are wished for on a certain date, pot firmly; keep as cool as is compatible with their welfare, and pick off flower buds until about six weeks from selected date.

Give Arum lilies plenty of water and regular feeding with liquid manure, varied occasionally by application of any good fertiliser; they are gluttons for food and water in their growing season. The yellow variety, *C. Elliottiana*, will do well with somewhat less liberal treatment; it is a very pretty kind, but, like many other beauties, somewhat fastidious. What a pity it is that the charming Little Gem variety is not more generally known; it only grows about 12 or 15 inches high, and is a dainty little plant for house decoration. Prick out as becomes necessary all tender and half-hardy plants, taking care to shade for a little while afterwards.

Strike cuttings of fuchsias; and re-pot, if not done already, plants started some time since in heat. Attend well to watering and feeding show pelargoniums. Get up a good stock of ivy-leaved geraniums, petunias, trailing lobelias, and other plants of same habit for furnishing hanging baskets, brackets, window boxes, &c. A lot of the French Marguerite or Paris Daisy will be found useful throughout the season.

Prune roses, sow more hardy annuals, plant gladioli, plant evergreens, sow pansies, protect sweet peas with nets from birds, dust with lime or soot, or both, to keep off slugs, make new plantation of violets.



THE NASTURTIUM or *Tropaeolum* is an ornamental plant, and of great use in garden decoration. The seed should be sown on the first favourable opportunity in May in drills about one-and-a-half inches deep, and covered with finely broken soil. The seeds should be sown against walls, over which the plants may be trained to hide unsightly objects. The dark flowering kinds produce fruit very plentifully. The young seed vessels when pickled resemble capers, and may be used for a similar purpose. If not used by the grower himself he will find a ready sale for them in markets. The young points of the side-shoots may be also used (with mustard and cress) as a salad. The dwarf varieties are more suitable in cottage gardens, and are worthy of a place in a window or flower border. X.

## How to Grow Carrots for Exhibition.

By WILLIAM JOHNSTON, Instructor in Horticulture, Co. Longford.

**SOIL.**—Carrots do best in deeply-worked, calcareous or rich sandy loams, which should be reduced to a fine tilth before sowing the seed. The soil should be deeply dug in the autumn, and in the following spring it should be well pulverised, as the seedlings of carrots are delicate.

**MANURING.**—Carrots do best after a crop that has been well manured the previous year. I find that carrots succeed best after a crop of celery, as the soil would then be rich in plant food for their use. If the soil is rather poor it would be well to dig in some well-decayed dung during autumn operations. This allows time for the decomposition of the manure, and also enables it to be thoroughly mixed with the soil; but under no consideration should fresh farmyard manure be applied immediately before sowing the seed, as it makes the crop susceptible to the attacks of rust, and also helps to produce a large percentage of "forked" and coarse roots.

**SOWING.**—After the ground is thoroughly prepared, open holes to the depth of 18 inches or 2 feet, the holes being about 4 inches in diameter at top. The distance between the holes in the rows should be 12 inches and the distance between the rows 15 inches. These holes should be made with a dibble, shaped like a perfect carrot. Fill these holes firmly with a compost consisting of a mixture of sifted loam, sand, leaf-mould, wood-ashes, and a little soot. It is certainly advantageous and very necessary to good results to have the compost used for filling the holes made quite firm, at least about the same firmness as the other soil of the bed. Sow 5 or 6 seeds in each hole about the beginning of April, and cover them lightly to about half an inch with soil of a similar nature as that used in filling the holes.

**AFTER CULTIVATION.**—Thin out the young seedlings to the strongest plant near the centre of each hole. When the young plants have grown to a fair size it is wise to give a mulching of leaf-soil or spent manure from a hot-bed, as this will prevent the tops of the roots from becoming green. Success with this crop will depend largely on the after cultivation of the surface tillage so as to keep the soil loose and free from weeds.

**BEST VARIETIES FOR EXHIBITION.**—For early shows the best variety is *Mackey's Early Premier*; it grows about seven or eight inches long; of great breadth; of a deep scarlet colour; splendid for summer use, and good for market purposes.

*Paragon.*—A grand variety of main-crop carrot; roots of good length; shape symmetrical; colour rich scarlet; smooth skin; splendid for exhibition. It is a heavy cropper and of excellent flavour.

*New Red Intermediate.*—A superb type of the Intermediate carrot; matures earlier, and grows about twice the size; core small; flesh close in texture and of bright colour. As an exhibition variety it is unsurpassed.

*St. Valery.*—A first class carrot; medium long; rich red colour; of handsome tapering form; good variety for autumn and winter exhibitions.

*Scarlet Intermediate (James').*—A useful variety; excellent keeper; fine in appearance; good for main crop; fine late variety for exhibition.

The roots of carrots intended for exhibition purposes should be clean, smooth, straight, of uniform size and highly coloured. They should be lifted carefully and washed with a soft cloth only.

A good artificial fertiliser for carrots is a compost made up of 3 lbs. common salt, 1½ lbs. superphosphate, 1½ lbs. nitrate of soda and 1 lb. kainit per square yard, half the foregoing quantities to be mixed with the compost prepared for filling the holes and the remainder to be applied when the plants are thinned.

# Notes from Glasnevin.

## Greenhouse Rhododendrons.

DURING the past two months the Camelia House at Glasnevin has not only been extremely bright with blue cinerarias (from Glasnevin saved seed), primulas, cyclamen, carnations, hippeastrums, daffodils, &c., &c., but also with the indoor rhododendrons, which have played if not as bright a part, certainly an interesting one. Many will have gone out of flower by the time these notes are in print, but the rightly called "Beauty of Tremough," close to the entrance door, will still be open. This hybrid was raised by Mr. Gill, gardener to Mr. Shilson, of Tremough, who raised many other good hybrids. Rhododendrons belong to a genus in which crosses are easily made, but patience is required, as it sometimes takes from twelve to fifteen years to see the result of one's work. On the other hand, crosses made with *ciliatum*, a Himalayan species, do not take as long, as the species itself will flower in three or four years from seed. *R. Edgeworthii* is a very sweetly-scented species from the Himalayas, and two or three flowers will scent a whole room. Hybridists have found that this species will only cross one way—that is, it will only serve as a pollen parent. These, as well as the patience required, are some of the trials met with in crossing.

Rhododendrons and azaleas have now been united into one genus, the difference being in rhododendrons having ten stamens and azaleas only five. Rhododendron anthers dehisce by means pores, and the pollen of it is held by a sticky substance usually in the form of threads. The following are some of the good hybrids:—Purity, large, white, waxy flowers; Countess of Hadlington, pink; Fosterianum, a cross between *veitchianum* and *Edgeworthii*; Princess Alice, *sesterianum*, and many others. Among the species we have *veitchianum*, from Burma, Bot. Mag., 4,992; *Ciliocalyx*, from China, Bot. Mag., 7,782; *Ciliatum*, from the Himalayas, Bot. Mag., 4,648. Microscopical study of the leaves alone of rhododendrons would, to any one interested, give the keenest enjoyment. Under the microscope we can see some covered with brown scales, others with silver scales, and again we have some looking like a collection of crystals in all conceivable shapes and sizes. To the naked eye, too, these leaves are of interest, being varied in size, colour, texture, and under surface.

R. M. POLLOCK.



## Orchids.

THE orchids at Glasnevin have been particularly bright throughout March, and are still worth a special visit on their own account. The collection is a most valuable and comprehensive one, many plants having been figured for the *Botanical Magazine*. Among the rarities is the giant *Eulophiella petersiana*, now in its full glory, and one must acknowledge that the plant is worthy of all praise bestowed upon it. From a rambling rootstock arise erect, sword-shaped leaves a yard in length, while the flower stem is nearly four feet long. The raceme bears eighteen expanded flowers, which are a bright, rosy purple, with a diameter of  $3\frac{1}{4}$  inches each; the lip has three stout ribs, or raised points, on the upper surface, and towards the centre are more slender ones of a golden colour. The *Eulophiella* is a native of Madagascar, and was first flowered in cultivation by Mr. Peeters, of St. Giles, near Brussels, being sent to him by Mr. Mocoris.

Cypripedium, or *Phragmopedium lindleyanum*, is a native of British Guiana; possibly a plant more interesting to a specialist than to the ordinary observer, for the curiously striped flowers are rather small in comparison to the size of the plant. But the specimen is a remarkably good one; the large, bright green leaves denote

vigorous health, while three flower stems arise, the tallest of which is  $5\frac{1}{2}$  feet high; each item is covered by brownish, glandular hairs.

*Calogyne lawrenceana* is a comparatively new plant, and was discovered by Mr. W. Micholitz when collecting in Annam for Messrs. Sander. Sir Trevor Lawrence, Bart., was first to flower it in March, 1905, when it also received the R. H. S. award of merit. The sepals are greenish-yellow and lanceolate, while the petals are still narrower. The lip is by far the most showy part of the flower; it is three lobed, the side lobes being erect and the front lobe recurved, white, with a yellow tinge; the disc is marbled, with varying shades of light and rich brown, with three fimbriated keels to the base.

There are many other showy orchids which make an attractive group, such as the *Dendrobiums*, *Oncidiums*, and some particularly good forms of *Cattleya trianae* and *C. schroderae*.  
C. F. BALL.



# Bee-keeping.

By T. MAGUIRE, The Orchard, Enniskillen.

WITH April the bee-keeper's year begins. Stocks may now be examined on a favourable day to see how they have come through the winter, to discover if any are very weak or queenless. In order that they may be united with their more fortunate neighbours, preparation should be made to give the hives a spring cleaning and painting, and to overhaul things generally. For spring cleaning, a spare hive is useful; each hive can be cleaned and painted, and a stock transferred into it in rotation until all have been treated. The hives should be washed out thoroughly with izar or carbolic solution; if the latter, some time will be required to allow the smell to dissipate.

Feeding for stimulation may now be started. Use syrup made from cane sugar, 5 lbs. to each quart of water, adding six drops izar to each pound of sugar. Give each stock a glass every evening, warmed to blood heat. If pollen be scarce in the neighbourhood give some pea flour, either in candy or by dusting into the combs near the brood. Bees cannot rear brood without pollen or its substitute.

Brood-spreading is a very risky operation in inexperienced hands. Beginners reading about it in the text-books are apt to overdo it in their eagerness to build up their stocks. At first brood spreading should merely consist in moving one of the outside combs of brood into the centre of the cluster, uncapping any honey that may be on the comb. An empty comb, or a sheet of foundation, should on no account be given in the centre of the cluster until the chamber is packed with bees; otherwise there is great danger of chilling the brood. Feeding, to keep up the heat and excitement, should always be practised when spreading the brood.

Skeps intended for transfer should now be fed every evening to get them into condition for setting up on frames by the end of this month or beginning of the next. Transfer should not be attempted until the skep is quite packed with bees. Take out the top plug, or cut a hole for feeding purposes, and put on a feeder. In the absence of regulation feeders, a jam-pot filled with syrup, having a piece of muslin tied over the mouth, and inverted over the hole, will answer.

In manipulating, always choose a fine day, and disturb the stock as little as possible. Bees are very prone to maltreat or even kill the queen when aroused at unseasonable times during the spring. Excessive smoking and subduing with carbolic is injurious, and quite unnecessary. For the average stock, all that is required is a whiff of the pipe or cigarette, if the operator proceeds



very deliberately and gently. Vicious stocks must, of course, be more energetically dealt with. Great care should always be taken not to expose any of the brood combs to chilly winds. A few seconds' exposure will sometimes be sufficient to throw the stock back for the season.

Appliances, sections, foundation, &c., should be ordered at once; frames wired, and everything got ready for use. Sometimes there is very little time to see to these things, when they are required.



## Correspondence

### CLEMATIS.

SIR.—I was glad to see your able correspondent's note *re* the above. Without a doubt he is correct in saying that clematises usually succumb after a hot day, and his hint as to planting will be appreciated by readers of IRISH GARDENING.

Whether or not every grafted clematis emits roots quite so early as the illustration shows I do not know. There are several methods of grafting and several stocks used. No doubt, during your correspondent's long experience he has found out the best way to get plants on their own roots quickly.

It is curious that true species, whether they come from among the rocky crags of the Himalayas, from America, China, Japan, or elsewhere, may be planted side by side with hybrids that die while the species will grow rampantly. J. W. B., Glasnevin.

### GRAFTING.

SIR,—The article published on this subject in last month's issue from a valued correspondent again raises the question of grafting in the fruit-grounds. We rejoice in the high pitch struck from the beginning by IRISH GARDENING; therefore out-of-date statements should at once be mercilessly corrected. The subject of grafting fruit trees out of doors must always be fraught with interest for those whose business or pleasure lies in the direction of horticulture. We were disappointed over the way we were told to graft fruit trees. I regret, when this writing appears, the grafting of fruit trees ought to have been finished long ago. If we were to graft them in the first week of April or the last week of March I doubt if nurserymen would sell trees at so cheap a rate as they do at present. In fact, here are many pears, plums, and cherries already showing their leaves (10th March), and I have no doubt by the first week of April this will be very much the case all over Ireland. Graft fruit trees early to expect good results. Graft any time between *1st of January* and the *1st of March*; only when the thermometer stands several degrees below zero, or when the wood is wet, you must not graft. In Germany we used to graft from Christmas on until the middle of February—and such results! Nowhere in Holland, France, or England saw I finer and stronger grafted-trees than those which the Germans get by their mid-winter method. Out of doors you must first graft *cherries* and walnuts, next pears and quinces, then plums, apricots, and medlars, last of all apples. Instructive examples of late grafting can be seen in most fruit-growing districts.

I was further surprised we were still shown old-fashioned methods of grafting fruit trees. In large

establishments thousands of fruit trees are now annually obtained by the so called "cleft-graft." A triangular piece is cut out of the stock or branch, the scion is also cut triangular (see sketch); tie with raffia, and exclude the air by waxing over just the cuts. When top-grafting arge trees this is the method *par excellence*. Only when stock and scion are of same thickness "tongue-grafting" may be employed, for which see our last issue. "Crown-grafting" is often very useful in the propagating houses, but of no use in the fruit grounds. The very uncertain results, the liability of getting broken by wind, the limited time suited for this method, and the weak growth—these all place this method in last rank.

We should liked to have heard the writer tell us, not as our forefathers did, to use *clay* to exclude the air from the cambium tissue, but *grafting-wax*, as it is cheaper and quicker made and gives far better results. Even if you have to graft only a dozen trees use wax. If you do not use it all now use it in coming years, as it does not spoil. You must not buy it in tins and pay six times the value of it. Get any common fat (*i.e.* Russian tallow) and twice the quantity resin. Boil together and pour in used jam-tins; keep your wax liquid in keeping it above a fire. If you should not like the expense of a waxing-stove, a kitchen-stove or an old pail wherein coal will serve the plan excellent.

To wax 100 grafts with this superb mixture will cost you about 2d.

F. J. LONGHOUSE.  
Delgany, Co. Wicklow.

SIR,—Your correspondent misses the point of my article on Grafting in last month's IRISH GARDENING, page 45. Had he read my remarks carefully he would have seen that it was not for the nurseryman nor the practised hand that it was written, but for the amateur fruit-grower.

In writing on such a subject as grafting it is most important to know the class of reader for whom one writes. The nurseryman and the qualified gardener know their own business, not so the farmer, who possesses, perhaps, some good variety of apple that he wishes to propagate; to him grafting is a rather difficult operation to carry out, no matter how well described; but seeing the work once performed it is simple enough. I admit there are many methods of grafting; the simplest, however, should always be recommended, especially when dealing with persons having but few trees to graft.

The writer evidently has little experience in this country or he would not have advised grafting to be done in winter, and, if he be correctly reported, almost under ertic conditions. Such advice may do in Germany, but it will not do in Ireland. Very few having any experience of grafting will agree with the statement that crown grafting is of no use in the fruit grounds. Now, crown grafting is one of the simplest and surest methods where the stock is thick. It gives the strongest growth, and the stock, where not too thick, is soon recovered over by a new callus of growth; a stake tied firmly to the stock to which the new growth can be tied protects it sufficiently. Exception is also taken to the use of clay for excluding the air from the cambium tissue, the writer saying that "such out-of-date methods were good enough for our forefathers." Our forefathers get a good deal of criticism in the present age, but they were wise, nevertheless, and in using properly prepared clay in grafting no better substance could be had. It is only in nurseries, where a large number of trees are to be worked, that wax is used, not because it is better, but because the work can be more expeditiously done. The farmer may have but one tree to graft, whereas the nurseryman may have many hundreds. Hence the advisability of one using clay and the other using wax.

GEO. DOOLAN.



## BEE-KEEPING MADE PROFITABLE.

Every Bee-Keeper who desires success should read

# THE IRISH BEE JOURNAL

(Established 1901).

*Official Organ of the Irish and Affiliated, Cumberland, and Perthshire B. K. Associations.*

**THE LARGEST PENNY BEE PAPER IN THE WORLD.**

Received with enthusiastic approval and congratulations at Home and Abroad.

"One of the brightest in the world."—*Gleanings (American).*

"One of the liveliest and best Apian Journals in all Europe."—*American Bee-Keeper.*

"Could not be equalled."—J. FAHY, Kilkenny.

"*Facile Princeps.*"—Rev. W. Y., England.

Monthly 1d.; 1s. 6d. per Annum, Post Free.

From the Office, IRISH BEE JOURNAL, Lough Rynn, Dromod, and of all Newsagents.

FOR

# Flower Pots

AND

# Horticultural Pottery

WRITE

**G. J. OWENS,**  
Brick and Pottery Works,  
**ENNISCORTHY.**

Agents for Dublin and District:—Messrs. E. BROWETT & SONS,  
7 Upper George's Street, KINGSTOWN.

**EVERY WEED DESTROYED**  
ON  
GARDEN PATHS. BY CARRIAGE DRIVES, &c.  
**"CLIMAX" WEED KILLER.**  
ONE APPLICATION IS SUFFICIENT FOR 12 MONTHS. IT KILLS THE WEEDS ROOT AND BRANCH.  
No. 1 tin, to dress 100 sq. yards, 2s. 3d. post free. No. 2 tin, to dress 400 sq. yards, 7s.  
Write for our Catalogue of Garden Helps.  
**BOUNDARY CHEMICAL CO. LTD. CRANMER ST. LIVERPOOL**

## BEE-KEEPERS.

**Bee-hives** and all Appliances  
of the most modern Pattern  
supplied. Write for list.

**Irish Producers, Ltd.,**  
105 Capel Street, Dublin.

## JOHN FALCONER,

LITHOGRAPHERS, PRINTERS,  
BOOKBINDERS, PUBLISHERS,  
AND STATIONERS,

**B**EG respectfully to draw the attention of Advertisers to their special facility for producing in first-class style, and at a reasonable cost, Seedmen's and Nurserymen's Catalogues, illustrated either in black or by the three-colour process; Price Lists, Attractive Folders for inserting in Magazines, &c., &c. All work entrusted to our care is executed by skilled and competent workmen, and the resources of our Establishment, both in suggestion and first-class material, are at their command.

**ESTIMATES FREE ON APPLICATION.**

**Specialities:** MUSIC PRINTING IN BOTH NOTATIONS, AND WORKS  
IN THE IRISH LANGUAGE.

**. . 53 UPPER SACKVILLE STREET, DUBLIN . .**

# *Power's Tested Seeds*

AS SUPPLIED DIRECT FROM WATERFORD  
TO THE  
ROYAL FARM, APPLETON.

---

PURITY AND GERMINATION GUARANTEED.

---

*Special Quotations on Application.*

---

## **WM. POWER & Co.,**

Seed Merchants and Nurserymen,  
**WATERFORD.**

MAY 1908.

TWOPENCE.

# Irish Gardening

## Contents

	PAGE		PAGE
Importance of Tillage . . . . .	65	Water-plants in Small Gardens . . . . .	73
Current Topics . . . . .	66	Roses . . . . .	74
Lachenalias . . . . .	67	Ard Cairn Seedling Daffodils . . . . .	74
Notes and Abstracts . . . . .	67	School Gardening . . . . .	75
Solanum Capsecastrum . . . . .	68	A Novel Apple Tree . . . . .	76
The Indiarubber Plant . . . . .	68	The Month's Work . . . . .	76
After-treatment of Bulbs in Bowls . . . . .	69	The Reader . . . . .	78
The Herbaceous Border . . . . .	70	Bee-keeping . . . . .	79
Notes from Glasnevin . . . . .	71	Window Boxes . . . . .	79
Irish Forestry Report . . . . .	72	Correspondence . . . . .	80

### DUBLIN

PRINTED AND PUBLISHED BY JOHN FALCONER, 55 UPPER SACKVILLE STREET.  
OBTAINABLE AT RAILWAY BOOKSTALLS AND FROM NEWSAGENTS THROUGHOUT IRELAND  
WHOLESALE AGENTS: MESSRS. EASON & SON, DUBLIN & BELFAST;  
GEORGE VICKERS, ANGEL COURT, STRAND, LONDON.



## WINDOW GLASS.

Polished Plate for Shop Windows.

Ornamental Glass of all Descriptions.

Horticultural Glass at Lowest Rates.

## DEATH TO THE WEEDS.

HOYTE'S WEED KILLER.

*Strongly Recommended for the Destruction of Weeds, &c.*

Price, 2s. per gallon; 5 gallons, 1s. 6d. per gallon;  
10 gallons, 1s. 3d. per gallon; Original 40-gallon casks,  
1s. per gallon.

HOYTE & SON, The City of Dublin Drug Hall,  
17 LOWER SACKVILLE STREET, DUBLIN.

LAWN MOWERS,  
WIRE NETTING,  
GARDEN REQUISITES.

S. W. PAINTS  
FOR FARM AND GREENHOUSE.

THOS.

DOCKRELL

SONS & CO., LTD.;  
DUBLIN.

## VALENTINE SKELLY,

Furniture Manufacturer,

29 TALBOT STREET,

Grows in Popularity —

Because he studies Value and  
never loses it.

Deals for Cash at Factory Prices

All Original Illustration Blocks in  
"Irish Gardening" are executed by  
THE . .

Irish Photo-Engraving Co.



Samples and Prices  
for every kind of  
Illustrative Work  
upon application. .

Oriel House, Westland Row, DUBLIN.

"Has stood the test of a quarter of a  
century."

## THOMSON'S Vine, Plant, and Vegetable MANURE.

Only Medal,  
Edinburgh, 1886.



Gold Medal,  
Edinburgh, 1891.

The result of long Practical Experience. Unrivalled  
for all Purposes. This valuable Manure is  
yearly growing in public favour.

ALSO

THOMSON'S SPECIAL  
CHRYSANTHEMUM MANURE.

Perfect Plant Foods.  
SOLD BY ALL SEEDSMEN.

Price Lists and Testimonials on application to  
SOLE MAKERS—

WM. THOMSON & SONS, LTD.,  
Tweed Vineyard,  
CLOVENFORDS, GALASHIELS, N.B.

## "A True Plant Food."

GIVES IMMENSE INCREASE IN CORN, ROOT,  
GRASS, FLAX, AND GARDEN CROPS . . .

The ONLY form of NITROGEN that feeds the  
Crop immediately it is applied.

NITRATE . .  
OF SODA

Can be bought of all Leading Dealers  
in Manures.

Pamphlets and information Free on application to  
JOHN SIMPSON, at the Irish Office of the

Permanent Nitrate Committee,  
15 Lower Sackville Street,  
DUBLIN.

# IRISH GARDENING



A Monthly Educational Journal devoted to  
the Advancement of Horticulture in Ireland



## Importance of Tillage.

By PROFESSOR JAMES WILSON, M.A.

IN this journal frequent reference has been made to the need for thorough and persistent tillage. So frequent have the references been that a contributor who has written upon the subject several times already is ashamed to do so again. Having some consideration for this contributor's frame of mind, and having no one else within reach who might deal with the subject, we proceed to do so ourselves, and we claim warrant for our procedure in two good reasons—namely, in the importance of the subject at this particular season of the year and in the knowledge that it cannot be driven home too well. If two men are sawing a great standing tree there comes a time when its weight closes up the track and chokes the saw. The men then drive a wedge into the track and set the saw free. But before they bring the monster to the ground they must repeat the process again and again. The wedge must not only be pointed, it must be driven to the very neck by many and many a blow. We look upon a knowledge of tillage as being the horticulturist's most effective tool, and so we return to it once more.

No man believed in tillage more clearly than the man who expounded it first. It is so in all things. The first discoverer is usually gifted with or attains to the clearest sight. Otherwise he would not be the first discoverer. What about Jenner inoculating his own child against small-pox? What about George Stephenson's confidence in his engine overcoming the coo? It was Jethro Tull who first discovered the nature of tillage. Tull was a barrister who, through weak health, took to farming. But, being an educated man and a thinking man as well, he saw farther into a clod

of earth than any other man had done before him. He was an observant man. He had also travelled abroad. Near his farm was a labourer who grew cabbages: who grew better cabbages than anybody else. Tull discovered how it was done. The labourer did what other cabbage growers did not do. Not only did he dig the ground before planting the cabbages, but he dug it after they were all well grown. This also reminded Tull of what he had seen done by the best vine growers in the

south of France. They kept on digging the ground around their trees right into the summer.

But Tull was not satisfied with seeing how the thing was done. He wanted to know also why it was done, and to know this he put on his thinking cap. He argued in this way: What does the digging do? What does the plant do? The plant sends its roots down into the ground, where they go boring and sprawling and crawling about in search of sustenance. Where do they get their sustenance? They get it from the surfaces with which they come in contact. Therefore the more of these the better; the greater the area of these surfaces the greater the chances of acquiring sustenance.

Can the area of these underground surfaces be increased? Does the spade do it? Will tillage do it? What does the spade do? It goes down into the ground and brings up a chunk of earth which it turns over and knocks to pieces. The chunk of earth had six sides or surfaces when brought out of the ground; now it has many. In merely going into the ground the spade splits up many a clod, big ones and small ones, and even some so small that we must call them particles. It even splits up gravel and small stones, and chips off small



Jethro Tull.

*From a painting in the possession of  
Mrs. Martin J. Sutton.*

pieces from many another. The spade, therefore, increases the area of underground surfaces, and thus creates new "fields" for the rootlets of the plant to sprawl upon in search of sustenance. We do the same when we cut a loaf in two, still more when we cut it into slices. If we are fond of butter or jam, do we not increase these in proportion to bread the thinner we cut the slices or the smaller we cut the chunks? We speak of a man or a boy perhaps as being exceedingly lucky when his bread is buttered on both sides. Would he not be still luckier if it were buttered on the ends as well, or, still more, if it were cut into square after square smaller and smaller, and buttered upon every new surface the cutting produced? Thus the man who tills his land is buttering his bread not only upon both sides but upon every side, and the more thoroughly he tills the more he enlarges the feeding ground of the plants he grows.

Although Tull died nearly one hundred and seventy years ago, we have not added greatly to his information. Tilling keeps down weeds. Tull knew that. He called them "robbers." We know that tilling gives chemical action a greater chance. Tull had an inkling of that also. There are only two important things about tillage that we know which Tull did not know. Tull never heard of bacteria. He died a hundred and twenty years too soon. But we know that tilling, besides increasing the surfaces, increases the air below, and so makes the bacteria more energetic. If a heap of newly mown hay or hard-trodden dung is tossed up with a fork, see how the fermentation is increased. The other thing that Tull did not know, or, at any rate, gives no indication that he knew, is that a tilled soil can hold more water—a matter of enormous importance from this time of year onwards. How is this done? Simply by deepening the cistern. A tilled soil is always higher than an untilled. There is no more matter there; but it occupies more space. It is longer from top to bottom. There are far more empty spaces ready to catch and to hold the life-giving liquid that "droppeth upon the place beneath."



### A Rann of Wandering.

ON Saint Bride's day, when it comes, I will throw a  
sail on the lake,  
And in Kiltimagh of my friends on a fine day I'll  
awake,  
Where the hounds will go before us, and make music  
of delight;  
Where the fires will be piled up, and the tables spread  
at night!  
O, my courage will be mounting up until my spirit's so,  
That within a mile of the world's mouth I will be fain  
to go;  
Sure the scatt'ring of the mist across leaves no half  
wish behind,  
And my heart was ever lifted with the lifting of the wind.  
—PADRAIC COLUM in "Wild Earth."

## Current Topics.

By PETER BROCK, Horticultural Instructor, Co. Fermanagh.

THE weather in this fickle climate is an everlasting topic. March came in, and for the most part continued and went out, roaring and pouring. In consequence of the long continuance of rain and storms the opening days of April found out-door work very much in arrears, sowing of fine seeds being about three weeks later than usual. This, however, is not such a serious drawback when seed can be got in on well prepared land and on a dry bed. "Long foul, long fair" is an old saying, and generally true. We may hope for more fair than foul weather for some time.

Current tips, not to the waiter, porter, or jarvey, but to readers of IRISH GARDENING:—Last month's issue contains some tips which, although they may not be seriously considered as a big push to the advancement of horticulture in this climate, they are, at least, amusing—for example, "grafting," page 64. The times and methods by which trees are "*made in Germany*" are unique, and may be calculated to draw smiles from some deft manipulators with knife or chisel on this side of the North Channel. It is, nevertheless, a fact that various methods such as whip, whip and tongue, or notch grafting may be successfully performed over a longer period than is generally practised in this country. Crown or rind grafting, however, can only be performed to the best advantage when the sap is moving. The season during which this work is done in Germany clearly explains the reason for the unpopularity of crown grafting there. Excluding the air from the points of union with wax or clay-pug is like choking the proverbial dog with butter or brick-bats—it does not matter so much how it is done, so long as it is done quickly and efficiently. Grafting, however, when the thermometer may be indicating frost near zero, muffled in a fur cloak, and carrying a bucketful of fire to keep the wax pliable, while other folks are skating or tobogganing, is not likely to come into general practice in this country.

The carrot is one of our most popular vegetables, forming a dainty relish when grated in soup, cooked whole, or in stews, and, as the chef puts it "salted and peppered to taste." But when "pickled" for an Irish (gardening) stew, made as directed in last month's issue, a special taste may have to be developed to relish it. How to grow carrots *pickled* for exhibition, the following hints are given on page 62:—

"A good artificial fertiliser for carrots is a compost made up of 3 lbs. common salt, 1½ lbs. superphosphate, 1½ lbs. nitrate of soda, and 1 lb. kainit per square yard; half the foregoing quantities to be mixed with the compost prepared for filling the holes, and the remainder to be applied when the plants are thinned."

The above compost is more like a weed-killer than a fertiliser, especially when applied in the manner described—at the total rate of 15 tons 2 cwt. and 4 st. per statute acre. Of course when the honour of winning a prize is in view, great pressure is sometimes resorted to and expense is seldom considered. To grow carrots free from blemish with insects, in prepared holes or otherwise, fit for exhibition or ordinary use, in succession to celery or other similarly heavy-manured crop in old gardens, the soil will invariably require fumigating. For this purpose about 3 lbs. of "Strawson's Vaporite," or the newer soil fumigant, "Cooper's Apterite," to forty (40) square yards, dug in immediately before sowing, will protect the crop from various kinds of soil insects—better known to gardeners as cut-worms. The artificial fertiliser recommended nowadays is enough to make the very grass on the grave of a well-known by-gone past master knight of the spade who was invariably a champion among exhibitors of vegetables at big shows exclaim—"Canny, mon! be canny wi' that salty compost!"



## Lachenalias.

A CORRESPONDENT asks for information respecting right culture and treatment of these plants, and we feel that we cannot do better than give an extract from a paper on "Lachenalias" read before the Royal Horticultural Society of England by Mr. F. W. Moore in the year 1891.\* The Lachenalias (Cape Cowslip or Leopard Lily) are bulbous greenhouse plants belonging to the Lily family and having their home in South Africa. The leaves are often spotted with purple, while the flowers have a wide range in colour—white, yellow, red, purple, blue, violet or green. Mr. Moore's advice as to culture is as follows:—

"TIME OF POTTING.—Pot as soon as the leaves die down; pot before the new roots appear; pot when the new roots have somewhat grown. I cannot imagine any thinking practical grower seriously giving such advice as to pot when the roots had begun to grow. The young roots are very delicate, white in colour, unbranched, and easily broken. When once injured they die back to the base, and do not branch above the injured part. This I proved by potting some bulbs which had already made roots, and turning them out after some time. The old roots were all dead, and new roots were growing from the necks of the bulbs. I find the middle of August to be the best time to pot, and my plants are invariably potted between August 10 and 20, the latter date being rather too late. However, I find that the time of flowering is not altered by potting in June, July, or August, the after-treatment in each case being the same.

"POTTING MATERIAL.—The material in which Lachenalias are grown must be rich. The compost I have used with most success is two parts of loam, one part of leaf-mould, one half-part of decayed manure, to which I add some fertiliser such as fish-potash guano, the effect of which I think is to intensify the colour of the flowers. The material is prepared in the spring, and well turned over three or four times before it is used. I use 7-inch pots for the strong-growing sorts, and put from eight to fifteen bulbs in each pot—eight of *L. pendula* and fifteen of *L. tricolor*. It is necessary to sort the bulbs well, keeping the stronger bulbs to themselves and weaker bulbs to themselves, as when mixed they sometimes flower irregularly. The strong bulbs flower earlier than the weaker. Basket culture may also be resorted to with advantage. In fact they grow rather better in baskets than in pots; the foliage is stronger, and so are the flower-spikes. The effect produced by a basket of Lachenalias with forty to fifty flower-spikes all open together is very fine, and such an effect can be secured without much trouble. The finest *Lachenalias Nelsoni* I ever saw was sent to me by the Rev. Theodore Marsh from a basket. He informed me that when carefully tended these baskets need not be disturbed for three or four years; but I have always re-made them each year. The same soil does for baskets as for pots. The baskets should, however, be lined with sphagnum before putting the soil into them.

"GENERAL TREATMENT.—When the bulbs have been potted they are well watered, and the pots are put in a light, airy house on a shelf near the light. The glass is not muffed or in any way shaded. The ventilators are kept open day and night until the middle of September, when they are closed on cold nights. As the soil gets dry the pots are again watered, and so treated until the leaves appear in the course of a few weeks, after which the soil should never be allowed to get quite dry. Watering must be carefully attended to, as the roots decay if the soil be too wet, such species as *L. glauca* and *L. orchidioides* being much more sensitive than *L. tricolor* or *L. Nelsoni*. The temperature in the house should not be allowed to fall below 45 deg. Fahrenheit, and plenty of

air should at all times be given. Should the day be dull or cold a little heat is turned on when the ventilators are opened, as a cold draft is less injurious than a damp, stagnant atmosphere. So treated they will commence to flower early in December, and at present several species are still in flower. As the plants come into flower they are fed with liquid manure once weekly, and this is continued until the leaves die down. Much of next year's success depends on this being carefully attended to. When the plants have finished flowering they are replaced on the shelf, and about May they are placed in a frame with southern exposure, and carefully attended to until they go to rest. The decayed leaves are then removed, the ashes in the bottom of the frame and around the pots well damped; the sashes are shut down, and remain so until potting time in August."



## Notes and Abstracts.

By G. O. SHERRARD.

ARCHES, PILLARS, AND PERGOLAS. Walter P. Wright. *Journal of the Royal Horticultural Society*. Vol. xxxiii. Part. I.—These structures are best formed of larch wood. In the case of pergolas the poles might be eleven feet in length, and sunk three feet in the ground, the wood being unpeeled, and the portions below ground having been previously treated with coal tar or creosote. A suitable distance apart for the upright poles would be eight feet, and they are usually connected by horizontal poles, and these by cross poles of lighter weight. Six-inch material could be used for the uprights, and three-inch or four-inch for the cross poles. Mr. Wright strongly recommends pillars clothed with clematis or other creepers as ornamental features in the flower garden. For growing on arches he recommends the following roses amongst others:—Crimson Rambler, Euphrosine, and Carmine Pillar. For pillars—Felicite-Perpetue, Rampant, Dundee Rambler, Hiawatha, Lady Gay, and Kathleen. For pergolas the above roses are all suitable; also Stella, Chestnut Hybrid, and Ards Rover. The best clematises for these structures are Miss Bateman, The Queen, and Fair Rosamond. Other plants suitable for covering pergolas are Ceanothus, Kerria, Honeysuckle and Jasmine.

THE JAPANESE DWARF TREES: Their Cultivation in Japan and Their Use and Treatment in Europe. M. Albert Maumerné. *Journal of the Royal Horticultural Society*. Vol. xxxiii. Part I.—In a most interesting article, with numerous illustrations, M. Maumerné describes the art of dwarfing forest trees as practised by the Japanese. This art, it appears, is part of the education of the Japanese gentry. It is their aim to reproduce in the trees grown in pots the appearance which the same trees would have when growing naturally in different situations. Not only must the trees be extremely dwarf, but they must show the effects of the wind and the weather in their trunks and branches. The treatment by which the Japanese obtain these effects may be described as a systematic starvation and continual pinching and training of the tops with corresponding pruning of the roots. The trees which submit most readily to this treatment are the pines and conifers generally. *Thuya obtusa* and its varieties, *Pinus densiflora*, *P. Massiana*, *P. Thunbergii* and *P. macrophylla* are frequently used; also *Juniperus rigida*, *J. recurva* and others. For their cultivation in Europe the author recommends that these trees should be grown for the most part in the open air, and only brought in to decorate rooms during occasional periods. They require vigorous pruning in spring and constant pinching during the summer, and they must never be given too much root room.

\* *Journal of the Royal Horticultural Society*. Vol. XIII.

## Solanum Capsecastrum.

**T**HIS *Solanum* is a valuable addition to our greenhouse plants during winter and early spring, its ornamental berries, bearing a resemblance to miniature oranges, make a fine display during the dull winter months. It is of easy cultivation, and propagates readily from seeds or cuttings. Nice plants can be obtained the season following propagation. In order to secure sturdy plants they should be heeled out early in May in an open border, where the sun's rays will have full effect, in



Fruiting Spray of *Solanum Capsecastrum*.

order to induce a profusion of bloom, which certainly means a better return of berries. During dry weather the plants should not be allowed to suffer from want of water. When they have set all, or at least the majority of their berries, which is generally about the end of September, they may be taken up carefully, the surplus soil shaken away, when they can be re-potted in soil containing three parts fibrous loam, one part leaf soil, with a mixture of old mortar rubble passed through a half-inch riddle. When potted they may be allowed to stand in a shaded position out-doors until they recover;

they can then be placed on some coal ashes in a pit or frame, keeping close, and shaded from strong sunshine, with an occasional syringe over-head. As these plants are generally liable to insect pests, keep a sharp look out for them, and if any come under notice check at once by fumigation or spraying with an insecticide. If it is desired to have the plants look their best for Christmas decoration, they may be gradually introduced into heat; it will be an advantage to the ripening of the berries if the straggling shoots are pinched at the same time. As the plants are now in artificial heat, they will be more subject to attacks of insect pests, and as prevention is better than cure, occasional fumigation should be resorted to, when the care bestowed on them will be amply re-paid by having fine, healthy plants to brighten the conservatory or sitting-room, where their bright berries, combined with their dark green foliage, will add a charm to the surroundings. P. MAHON.



## The Indiarubber Plant.

**A**LTHOUGH indiarubber plants are invaluable for room, table and window decoration, and thrive much better in such situations than the majority of plants, they require an even and equable temperature, sudden changes and alternate spells of heat and cold being common causes of the plants becoming sickly in appearance and losing their leaves. *Ficus elastica* succeeds well in compost consisting of three parts fibrous loam, one part leaf soil, one part peat, and one part sand, whilst a temperature of from 55 to 60 degrees during the summer and from 45 to 50 degrees during the winter is desirable. To keep the shining green leaves in good condition they must be frequently syringed and sponged, and the plants be shaded from the sun, whilst during the spring and summer a liberal supply of water at the roots must be given. In course of time indiarubber plants grow tall, and lose their lower leaves, becoming unsightly in appearance and quite useless for decorative purposes. There are two ways of dealing with such plants, one being to stem-root them, and so reduce their height and bring them into better shape, and the other to utilise the plants for propagating purposes in the manner afterwards described. Stem-rooting consists of inducing roots to be emitted from the stem of the plant at a certain point, April and May being the best months to perform the operation, the method of procedure being illustrated in the accompanying sketches. An indiarubber plant that has lost its lower leaves is shown in Fig. 1, the letter A indicating the point at which it is desired to cause roots to be emitted. A 3 or 4-inch pot should be sawn or split into two pieces, and the drainage hole be enlarged so that the pot will fit round the stem of the plant. With a sharp knife an upward cut must be made in the stem of the plant at the point A to form a tongue about half the thickness of the stem, as shown in Figs. 1 and 4, a small stone being placed in the cut to keep it open. With a length of raffia the split pot should be bound together round the stem of the plant at the point where the cut has been made, and be supported with two or three sticks, as shown in Fig. 2. Fill the small pot with sandy soil as Fig. 4, making it moderately firm, and stand the plant in a warm and moist position in the



greenhouse. Shade from the sun must be provided, and the soil in both pots be kept well supplied with water. In about six weeks roots will have been emitted from the cut in the stem, and the upper portion be a separate plant, which may be gradually removed from the leggy stem in the following manner:—First cut partly through the stem immediately under the split pot, and watch what effect this has upon the dwarfed plant.

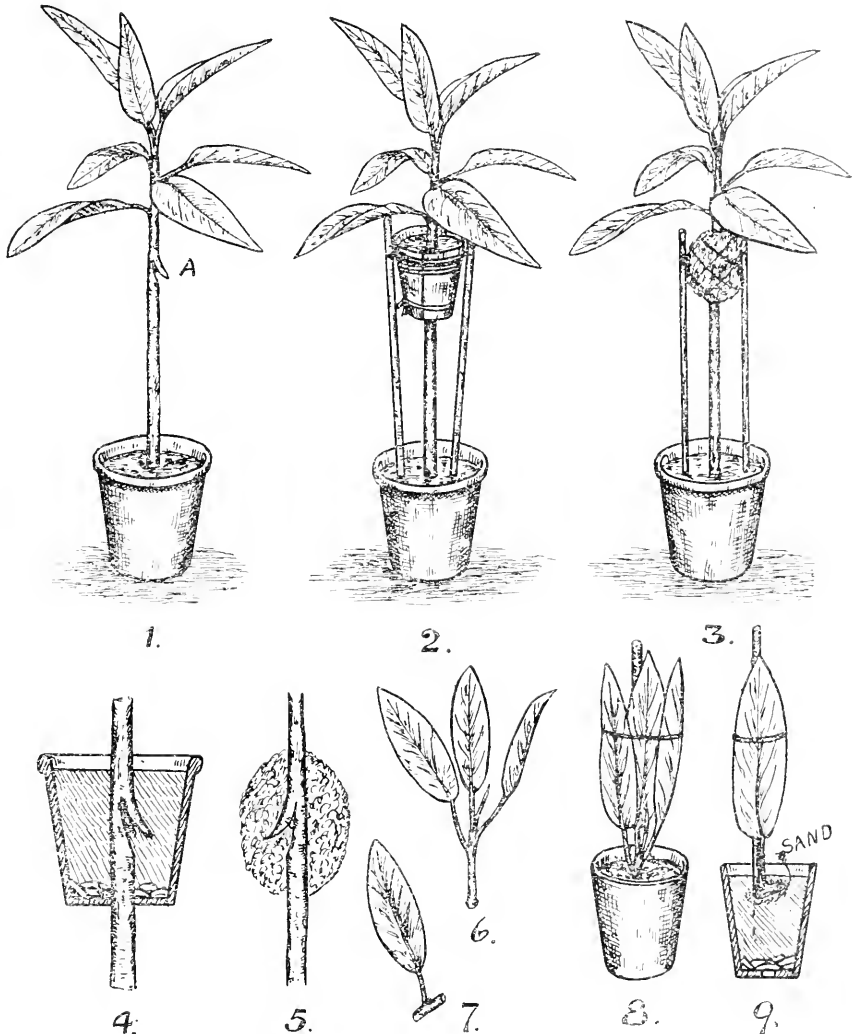
If the leaves flag and droop it can be taken for granted that the newly formed roots are not yet strong enough to support the plant, and nothing further should be done until a week or so after all signs of flagging have disappeared, but if the incision made in the stem has no effect upon the leaves the cut should be deepened a little every two days until the dwarfed plant is entirely severed from the leggy stem, when it must be placed in a shady position in the greenhouse for a fortnight and be frequently syringed, after which it should be repotted into a larger pot, and be treated as an established plant. Another method of stem-rooting indiarubber plants is shown in Figs. 3 and 5, the stem being cut and tongued as before, but instead of a split pot a ball of moss is bound round the stem. Keep the moss well moistened, and as soon as roots show through the dwarfed plant may be severed from the main stem in the manner previously described. As before mentioned, tall, unsightly indiarubber plants can be utilised for propagating purposes, spring being the best time to insert the cuttings. The top of the plant should be cut off and prepared by cutting the stem across immediately below a leaf joint, as in Fig. 6, and the leafy portion of the stem be cut into lengths of about two inches, so that each has a bud and leaf attached, as shown in Fig. 7. Sandy compost should be used, and each cutting be inserted in a small pot, as shown in Figs. 8 and 9, care being taken to place a little sand round the base of each, as shown. Tie each cutting to a stake, and plunge in a propagating frame or under a handlight, and keep moist and warm.

H. C. R.

[NOTE.—It will be evident to most gardeners that the above method of "stem-rooting" is a modification of the ordinary process of layering. By making an incision in the stem the downward passage of the nutritive sap is arrested, so that a quantity of rich available food accumulates above the wound. This, together with the presence of a damp surrounding medium, induces the formation of roots—ED. L. G.]

## After-treatment of Bulbs in Bowls.

THE treatment of bulbs after they have flowered in bowls is more important than is often thought, not only for those grown in bowls, but also for those in pots, always supposing that these bulbs will be required for use at some future period. Bulbs from bowls, whether grown in sand, saw-dust, gravel, or any



Illustrations showing successive stages in "stem-rooting" the indiarubber plant (1-5) and propagation by cuttings (6-9).

other material, should be taken out as soon as the flowers have faded, and planted in a shady border, where they should be allowed to remain until the following summer year, when they can be lifted and used again. It does not in the least matter if the saw-dust adheres to the bulbs, as this will pass away when it comes in contact with the moisture of the soil. This treatment should always be adopted, as the bulbs have exhausted all the store of food laid by in the good firm bulb which was originally planted, and they have not been able to get any nourishment in return from the gravel or other material in which they were growing.

R. M. P.

## Herbaceous Border.

**T**HIN out all annual seedlings as soon as they have formed their rough leaves. It is a great mistake to allow the plants to grow close together. Thin them according to height and habit of growth. A really well-grown annual that has plenty of space to develop will give far larger flowers than plants that are grown very closely together. Stake sweet peas as soon as the plants have appeared a few inches,

varieties. The hoe should be kept going from this time onwards to keep the surface soil fine-grained and open and free from seedling weeds.

FRANK HUDSON.



**ADVANTAGES OF HOEING.**—Mr. Hudson in his above note on the month's work in the Herbaceous Border winds up with an instruction to keep the hoe going. The advice should be kept well in mind, and acted upon persistently throughout the summer.

There are two factors that, more than any others, materially influence the full development and activity of the root systems of border plants, and these are a proper supply of water and fresh air to soil. Consider for a moment the effect of hoeing upon these two factors. Assuming that the soil is well drained and properly tilled, hoeing prevents the sealing up of the surface, and by keeping the particles loose allows for the free passage of air to and fro from the soil. Cultivators must never forget that the living roots breathe, and that therefore they require to be continually supplied with pure air throughout the growing season. The soil must be kept in such a condition as will permit of easy gaseous diffusion—in other words, the vitiated air must be allowed to escape from, and fresh air to diffuse into, the soil. Hoeing, therefore, is an hygienic operation or one influencing the health of our cultivated plants.

By keeping the surface of the soil fine and powdery, water is saved by preventing evaporation. All the water that passes into the air escapes from the foliage, and therefore must first flow through the body of the plant. This is a great gain, especially in a dry season. The weed question is of quite secondary importance. Indeed, if the surface of the soil is stirred as frequently as is necessary to secure these two advantages to the full there will be no weed problem at all.



**ACHILLEA ALPINA.**—A very useful, hardy, herbaceous plant, from 2 to 2½ feet high, bearing in summer loose heads of pretty white flowers. It will do well in any ordinary garden soil, but must be kept watered during dry weather. *Achillea Alpina* makes an excellent subject for table decoration, and lasts well in water. It requires little foliage other than its own, as when well grown the leaves are sufficient to furnish the stems when in water. It strikes easily from cuttings, or can be increased by divisions of the roots. R. M. P.

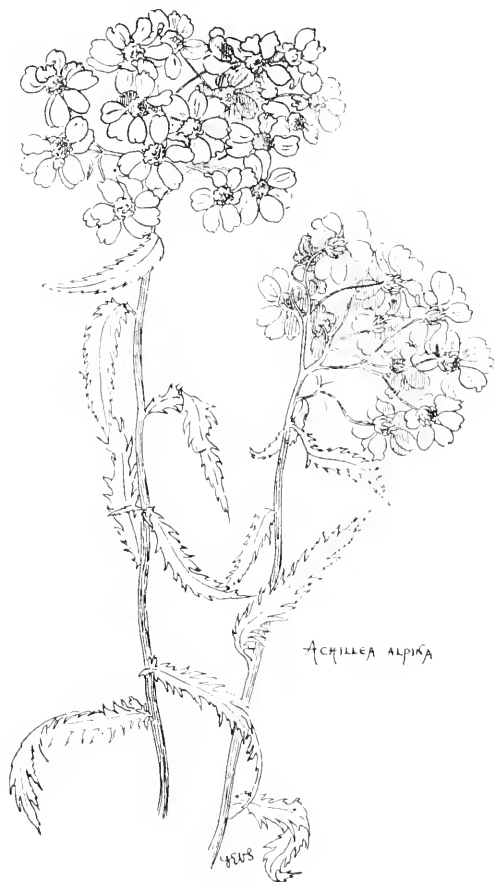


PROFESSOR L. H. BAILEY gives the following excellent advice with respect to the formation and management of a Herbaceous Border:—

**SUCCESS IN BORDER GARDENING.**—In making a border of flowers, the most satisfactory results are obtained if a large clump of each kind or variety is grown. Some of the most effective borders are those which are filled with miscellaneous perennial herbs taken at odd times from fields and woods. The herbaceous border is one of the most flexible part of grounds, since it has no regular or formal design.

Allow ample space for each perennial root—often as much as three or four square feet—and then if the space is not filled the first year or two, scatter over the area seeds of poppies, sweet peas, asters, gillias, alyssum, or other annuals.

Prepare the ground well in the beginning, taking particular care to make it deep, and mulch liberally every autumn. Even perennials usually bloom better when not more than two or three years planted, and the grower must expect, therefore, to renew or change the clumps from time to time.



*Achillea Alpina.*

at the most, above the soil. If any annuals are not yet sown the work should be done at once. Transplant stocks, asters, and other annuals grown under glass as advised last month. Shade and keep close for a few days, then give plenty of air and light to encourage the young plants to grow sturdy. If cuttings of phlox, Michaelmas daisies and many other herbaceous plants are put into a frame and kept close and shaded from bright sun for some time they will strike root. This is not an necessary way of propagating unless with rare

## Dog's-tooth Violets.

**D**OG'S-TOOTH violets (*Erythronium*) are charming spring-flowering plants of easy cultivation.

The mottled leaves spring from a short stem that passes below into a corm or rhizome. The flowers are drooping, and occur sometimes singly and sometimes in pairs from a relatively tall, slender scape. The floral leaves are usually turned back, bringing the six anthers well into view. It is scarcely necessary to say that *Erythronium* is not a true violet; it belongs to the Lily family. There are over a dozen species of this genus (together with intermediate forms) in cultivation, of which *E. Dens-Canis* is the most common in gardens. This is the only species native to Europe (the others being North American). Its flowers are rose or violet-purple, with a brown spot at the base of each of the six segments.

Dog's-tooth violets are naturally woodland plants, and therefore require shade in the garden. They love a deep, rich, light soil, with plenty of organic matter (fallen leaves being good). To enable them to pass the winter unharmed the soil must be well drained, and if they are to occupy the same site year after year top-dressing occasionally with well-rotted stable manure will be necessary to secure continuous vigorous growth of foliage and flower. They are excellent subjects for pot culture.

The most showy species is *E. giganteum*, a native of California, where it grows at an elevation of 6,000 to 10,000 feet. The flowers are from one to six on the stalk, are of a creamy white or pale yellow, suffused with orange at the base. It is a strong grower. Another fine Californian species is *E. Hartwegi*, with single pale yellow flowers  $2\frac{1}{2}$  to 3 inches across. *E. revolutum* is a beautiful species from Nootka Sound, with large wavy leaves mottled with brown, and carrying 1-2 pink or rosy-purple flowers on tall scapes.



**LOVE-IN-A-MIST** (*Nigella*) is an old garden favourite known also as "Devil-in-the-Bush" and Fennel-flower. It is an annual, its various species being native to Southern Europe and Asia Minor. Plants are of course raised from seeds, and may be grown in any ordinary garden soil. The seedlings, when old enough to handle, should be thinned out to at least six inches apart. The best variety is the comparatively new one, "Miss Jekyll." It grows to a height of one foot, and produces flowers of a most beautiful shade of blue. The blooms are succeeded by ornamental seed pods, which will persist throughout the winter. The cut flowers are most useful for room decoration. *Nigella* belongs to the same family as columbines and buttercups.



**SHADY CORNERS** in the garden may be made beautiful and interesting by proper preparation of the ground, and by planting such subjects as demand little light for their successful growth. The work should be proceeded with at once. The more or less sour and impoverished soil should be removed to a depth of two or three feet, and good loamy soil substituted, supplying a proportion of peat in spots where ferns are intended to be grown. Prune away such overhanging branches as may be dispensed with, and root up useless underwood. Native ferns may be used, such as the Hart's Tongue, Male and Lady ferns common in most parts of the country. A writer in *Country Life* recommends for such situations Woodruff, Japanese primrose, Day lilies, clumps of *Lilium giganteum*, Spanish scillas, Primroses, Trinity flower (*Trillium grandifolium*), Auriculas, Christmas roses, *Mimulus cupreus*, the May flower (*Galax*

*aphylla*), Forget-me-Nots, *Omphalodes verna*, and Daffodils. There are also many decorative shrubby subjects that may be planted in the shade, such as Periwinkle, *Hypericum* (Rose of Sharon), Ivy, &c., but this note is not intended to deal with them.



A Dog's Tooth Violet  
(*Erythronium Hartwegi*.)



## Notes from Glasnevin.

### Plants of Interest.

*Anemone Fannini*.—A rare and uncommon Anemone of giant proportions compared with most of its relations. The stem is almost two feet high, bearing two creamy white flowers measuring three inches across when fully open. The foliage does not appear until the flowers are over, and is large and handsome. The plant was discovered in 1863 at Dargle Farm, Natal, by Mr. G. Fannin, and was sent to Kew in 1883. The plant, now in flower in the open at Glasnevin, under the wall of the stove, was presented to the Gardens by Mr. W. E. Gumbleton in 1901, whose name as a collector of rare and interesting plants is well known.

R. M. POLLOCK.

# "IRISH GARDENING."

AN ILLUSTRATED MONTHLY.

OFFICES—53 UPPER SACKVILLE STREET, DUBLIN.

**Publishing Date.**—First day of each month.

**Subscription.**—3/- per annum, post free.

**Editorial.**—All Editorial Communications, copy, and photographs should be addressed to "The Editor."

**Business Communications.**—All letters regarding Subscriptions, Advertisements, and other business matters must be addressed to "The Manager."

**Wholesale Agents.**—Newsagents will please send their orders for Copies to either Messrs. Eason & Sons, Dublin and Belfast; Messrs. M. H. Gill & Son, Dublin; Messrs. Robb & Co., Belfast; or Messrs. News Bros., Cork.

**London Agent.**—Mr. G. Vickers, Angel Court, Strand, London.

**Remittances.**—Postal orders, cheques, &c., should be crossed and made payable to The Manager, "Irish Gardening."

## Irish Forestry Report.

THE Report, just issued, of the Departmental Committee on Irish Forestry forms a most valuable text-book on the present condition of our woodlands, together with carefully considered recommendations as to a national scheme of afforestation.

The Report shows that the percentage of area of woods in Ireland is much below that of any European country, with the exception of Iceland. This area is proved to be too low for the economic welfare of the country, and that it is steadily shrinking, while, from the character of the cutting, the quality of the woods left standing is deteriorated. This state of affairs is brought about chiefly by the Land Purchase Acts, as the existence of woodlands is an obstacle to the purchasing of estates. This factor in the disappearance of woodlands was helped by the storm of 1903, which threw an excessive quantity of timber upon the market. When the demand in Great Britain for timber was great, owing to a shortage of supplies from abroad, the best trees were felled to meet the increased trade, and, while the value of the woodlands was deteriorated, no effort was made on the part of the landowners to re-plant.

The evidence given as to the exhaustion of woods is conclusive. In the last five years the area cleared amounted to 7,424 acres and the number of trees felled to 5,241,259, while the area planted amounted to 4,532 acres and the number of trees planted 9,458,573. From this can be seen that the number of trees felled have amounted to more than half of the number of trees planted, whereas, it is stated, the number of trees planted should be at least four times the number of trees felled.

The Committee tested the conditions of woodlands by direct inspection of King's County, and from the survey have stated that a probable 50% of these woods have been partially cleared, are not being restored, and are going into decay.

Comparing this actual survey with the statistics of other parts of Ireland, it is assumed that a similar state of affairs exists throughout the country. The increased facilities for the felling of timber point to the increase of the number of trees felled. Not only is the quality of the wood to be deplored, but the low yield of timber is abnormal, and the result of the present process, if not checked, means the closing of existing wood-working industries which are dependent on home-grown timber. Representatives from these industries have been interviewed by the Committee, and all are unanimous on one point—that if the present state of diminution of Irish woodlands goes on unchecked, these industries will have to close their doors.

The export of timber, mostly in the round state, has attained the proportion of 72%, leaving only 28% for home industries. This sending out of timber of so large a proportion in the raw state means that the Irish timber industry is not effectively organised. This traffic would be substituted by a trade in prepared timber. The Report insists on the organisation of the timber industry and the need for technical education, so that the country may get the benefit of its woodlands.

Under the Purchase Acts the preservation of woodlands is not provided for, nor is the acquisition of waste lands sufficiently provided for. The Report urges immediate need for remedying this loss. It shows the value of timber at present, when the world is rapidly approaching a shortage, and its increasing value in various industries—among these the development of bye-products. It argues that the value of timber commercially increases, and that a national supply becomes of supreme importance. Ireland, all men of experience agree, in soil and climate is particularly well favoured for producing good timber. There seems to be not so much available land as might be expected. Two classes of land are barred out before estimating—land which would pay better for tillage or pasture, and genuine waste land. Of the latter, some of the mountainous districts to the north and west of the country, where peaty and rocky types predominate; but, in most of the other districts, the possibility of afforestation amount from about 10% to 20%. Of the entire surface of the mountains much land, which would be more suitable for forestry, is now in the hands of tenants who use it for poor pasture.

The Report urges the necessity for State action. The undertaking is too great and too far-reaching for private ownership. The responsibility lies on the State in Ireland, in view of its past neglect and present legislation to remedy the defects. The Department of Agriculture is at present endowed with necessary

power, but it lacks the funds to work with. In order to carry out a national scheme of afforestation, the forestry section of the Department needs to be strengthened and developed, and special funds provided for the work that this section may be called upon to do. Finally, it is suggested that the proceeds of the Irish Quit and Crown rents might be appropriately utilised for financing such schemes of national afforestation of Ireland.



THE Spring Show of the Royal Horticultural Society of Ireland, held on the 8th and 9th of April, was a very successful function so far as variety and excellence of the exhibits were concerned. The one great disappointment was the poorness of attendance. It is a great pity that the people of Dublin show such little interest in functions of this kind, and it is most creditable to the society to persevere as it does in providing such excellent shows in the face of the persistent apathy of the general public. It is the clear duty of every lover of the garden to do all that in him lies to interest his friends and neighbours in the good work of this truly national society.



IRISH FORESTRY SOCIETY.—The annual meeting of this society was held in Dublin on the evening of April 22nd. A new departure was taken this year in the form of a conversation, at which exhibits bearing upon Forestry formed an interesting feature of the gathering. Mr. Gunn (of Messrs. Dicksons, Dawson St.), who bore the brunt of most of the hard work in connection with the Exhibition, deserves much praise for getting together such an extensive and representative collection in so short a time. Readers interested in the proceedings of this society may obtain the annual report on application to the secretary, A. H. Walkey, 12 College Green, Dublin.



WE have received from the office of the I. L. P., 23 Bride Lane, London, a pamphlet on "Socialism and Agriculture." The writer takes as his text "The organisation of the production of agricultural wealth of the best quality, without scarcity, without waste, and in such a way as to produce the highest type of humanity." He argues that modern farming has not produced food in a clean, healthy and wholesome state, and says:—"The filthy story of private enterprise still awaits a sensational writer to tell." He quotes a Forestry Report in which it is insisted that "State or Corporate control is the only means to secure that continuity of management without which a sustained annual yield and a maximum return is impossible," and argues that if this is so necessary for forestry it is a hundred times more necessary for agriculture.



"GARDEN FLOWERS" is the attractive name of an illustrated catalogue forwarded to us by Messrs Watson and Sons of Clontarf. Its title sufficiently explains its contents.

We have also received a neat little illustrated catalogue of hardy perennials from J. Cunningham, Shergim, Omagh.

A very interesting catalogue is that of the Hardy Plant Farm, Enfield, Middlesex (Perry's). It includes descriptions of new and rare plants of recent introduction, and is illustrated.



WE should be pleased to receive from Secretaries of local Horticultural Societies copies of their reports or schedules of forthcoming shows.

## Water-plants in Small Gardens.

AQUATIC plants are interesting to all nature lovers, yet, excepting in large gardens, they are seldom cultivated. This need not be, however, as even the smallest garden may have its pond *à la* miniature. There can be no difficulty in stocking the "pond," as many of our native plants are common enough and handsome enough for our need and purpose.

Tubs or paraffin barrels (sawn in two) may be utilised. If the latter be used they must be first cleansed by burning with a bundle of lighted straw. The tub is sunk in the ground so that the rim is on a level with the surface. The bottom of the tub is



then well covered with small stones or gravel, over which is placed a mixture of rough fibrous loam and well-decayed manure to about halfway up the tub. It may then be filled with soft water, and allowed to settle for a day or two, and then planted.

The present month is one of the best to start such gardening. The plants that may be used are such as can be discovered by margins of ponds and sluggish streams. The following are good subjects:—*Typha*, or reed-mace, has broad lance-shaped leaves and tall poker-like flower spikes; it is very effective. Bur-reed (*Sparganium*) has a branching stem, with erect leaves and globular flower heads. Arrow-head (*Sagittaria*) is local in Ireland. It is so named because of the shape of its leaves. The scape is tall, and carries two kinds of flowers (male and female). It is stoloniferous, and produces globular winter tubers. Flowering rush (*Butomus*) is rare in Ireland. It is one of the most handsome of our native aquatics. The flowers are rose-coloured, and are produced in umbels upon tall, leafless scapes. Water violet (*Utricularia*) is a floating plant with erect racemes of lilac flowers with a yellow eye.

One need not necessarily confine oneself to

native plants. There are dainty water-lilies of the Laydekeri and Pygmaea sections, Cape pond-weeds (*Aponogeton*), *Limnanthemum peltatum*, and others to choose from.

For school gardens, too, these tiny artificial "ponds" are most useful, and should certainly be included in the scheme of instruction. There is a peculiar fascination about water-plants, and their inclusion in a garden adds considerably to its attractiveness.



## Roses.

By O'DONEL BROWNE, M.D.

IN my last article I gave a few hints about the staging of flowers in shows, pointing out how sometimes we see flowers of good merit staged badly, thereby losing points to the exhibitors. Roses are generally shown in two ways, either exhibition blooms in boxes or trays or in vases. There are other ways, but in Ireland these are the two chief methods. Inasmuch as there is a preponderance of classes for boxes, I will discuss this kind of exhibit first. Any handy man can make a rose box if he has a pattern to go by; there is nothing difficult about it, provided you give your order in ample time so as to allow the paint to dry. The size of the box or tray, should you prefer the latter, is laid down by the R. H. S. and N. R. Society's rules,<sup>\*</sup> and local show committees should insist on exhibitors closely adhering to the proper size, as nothing detracts more from the look of the show than boxes of different sizes in the same class. The depth of tray should be at most 4 inches and not less than  $3\frac{1}{2}$  inches. The width of all boxes must be 18 inches, and the length varies with number of blooms. Here are the lengths—

	Length	Depth	Width
6 box	1 ft.	4 in.	18 in.
9 "	1 ft. 6 in.	4 "	18 "
12 "	2 ft.	4 "	18 "
18 "	2 ft. 9 in.	4 "	18 "
24 "	3 ft. 6 in.	4 "	18 "

All these measurements are outside measurements. Inside the box there is a tray pierced with holes at equal distances to hold the tubes containing water and an inner tube holding the wired blooms. This tray should be neatly covered with the very best moss procurable, not moss with grass through it, as one often sees. That found in woods or trees is the best. It should be searched for a week or so before a show, and well watered every day, and search should be made a couple of times at night for slugs in it. Nothing can relish a rose in a box on the way to a show more than a slug. It is safer to moss your tray a day or so before a show, and water it carefully. Tubes with wires complete can be had from Mr. Foster, Ashford, Kent, or from Frank Cant & Co., Braiswick Nurseries, Colchester. I do not know Cant's price, but Foster's charge is  $\frac{5}{6}$  per doz. post free. Any seed shop can get them for you, but get them in time. Tubes should be filled with water, not from the main, but from a bucket of soft (for preference) water on which the sun has been shining for a couple of hours. I forgot to say that two six boxes can be used for a twelve, but it is best to have a box for each size—it saves time when travelling from home. The lids of boxes should be 8 to 9 inches high, made of  $\frac{1}{2}$  inch deal boards the same as tray, and should have the corners strongly protected with angle plates, and be well provided with strong handles. The hinges used are what are called "right half butts" to allow lid to slide off tray when at show.

<sup>\*</sup> Naas Horticultural Society has adopted this rule.

A lock and key is best, but do not forget the key! There should be ample ventilation at the sides of the lid, and these holes should be covered on inside with close wire netting or perforated zinc to prevent dust entering. Inside and outside the box must be painted a dark green and any initials you care to have, so as to recognise your box any time. When you are travelling you must keep a constant eye to your boxes, as railway folk in ignorance treat them very roughly, and an odd tip does wonders to keep all level and *right side uppermost*. When you reach your show you should first of all take a peep and see how your blooms have travelled, and before you go any farther, look and see if much water has escaped from joltings on the way. Any empty tubes must be replenished. In his new book Mr. Pemberton lays great stress on this watering of roses; he holds that a change of water is injurious, but we all do it, and some of us do not suffer so very much. It is surprising what water a young bloom can absorb. Some exhibitors plug the mouths of the tubes with moss to prevent any over-splashing, but I think it makes a box look unsightly. If you reach the show the night before the exhibition or in the very early hours of the morning of the show—when you have seen to these little preliminaries—it is well to close down your lid again—but if you are about the boxes then give your roses air by propping up the lid by inserting a flower vase-pot or a brick between tray and lid, or make the hasp on the lid keep the lid off the tray by propping it on the tray. Mr. Pemberton advises you, if you *have* time, to "go and take forty winks"—both you and the roses will benefit by this piece of advice. Of course, this only applies to a show where you arrive early in the morning.



## Ard Cairn Seedling Daffodils.

MR. WM. BAYLOR HARTLAND sends us a box of lovely blooms of seedling daffodils raised at the Ard Cairn Nurseries. One, a Paeiticus seedling with pure white perianth leaves, is named after Miss Rose Bedford, daughter of the gardener at Staffan. It was so named by the late Mr. Burbridge, and Mr. Hartland has repeated to us the circumstances under which it received the name. Mr. Burbridge was on a visit to Ard Cairn, and on seeing the seedling exclaimed—"Hallo, Hartland! you have a lovely thing here, the whitest thing I have ever seen. Let me name it after a dear friend of mine." And so it was there and then named "Rose Bedford."

Two others—Polly Eccles and Jenny Woodhouse—are here illustrated. Polly Eccles is represented by the two central blooms shown in front view: it is a lovely bicolor, segments pale primrose, trumpet a richer tone, serrated and folded back. The flowers are small but really beautiful. Jenny Woodhouse is a shapely bicolor, the perianth and trumpet being of the same length, the latter being distinctly flanged. Two other blooms of special interest are Lorna Doone, a handsome self-yellow of the Ajax type, and the rare White Minor, a most delightful little flower.



HERBS.—Time was when every well-regulated garden grew its quota of herbs; now, they are rarely found save and except in the gardens of the old-fashioned country mansion, and here and there in the garden of the cottager. Probably the ease with which dried herbs can be obtained in packets has had most to answer for in the decline of the herb in popular favour, but certain it is that our gardens are the poorer for the absence of such sweet old-time favourites as rue and rosemary, mint and marjoram, thyme and tarragon, sage and savoury, balm and basil, chervil and chamoemile.

H. C. PHILBRICK.

## School Gardening.

By L. J. HUMPHREY, Special Instructor in School Gardening under the Department of Agriculture and Technical Instruction for Ireland.

**H**ERBS.—A useful adjunct to the school garden is a border or bed for herbs. Many plants of this kind are very interesting to grow, and as small supplies are constantly being required their cultivation affords a variety of work spread over a considerable period. In girls' schools where domestic economy is taught the herbs will be greatly valued by the teacher, and the work of growing them could form an introduction to gardening of a more general kind. Only a small piece of ground is necessary, and the majority of the plants can be raised from seeds at very little cost. The soil for the border should be well prepared by digging and manuring as early as possible, and the seeds can then be sown during the present month. Before sowing, large stones should be removed from the surface and the rough lumps of soil broken down by the use of the rake. As many of the seeds are small the surface soil should be made level and no irregularities left in which seed might get buried at too great a depth. The seed should be sown in drills about one inch in depth, afterwards covering the seed with the fine soil removed in draining the drill. The annuals, however, should be kept distinct from the perennials in order that the cultivation in after years may involve less trouble. It is a good plan to have all the rows short—about six to eight feet—and then for those kinds of which small quantities are required one row will be sufficient, while for others two, three, or more rows will be necessary.

Thyme as a small shrubby perennial would form a neat and effective edging, while if a low hedge is required to divide the herb garden from the rest of the grounds lavender is both appropriate and ornamental. The following are some of the most useful kinds to grow:—Thyme (seeds or cuttings), mint (cuttings or division), lavender (seeds or cuttings), rosemary (seeds, cuttings or division), sage (seeds or cuttings), angelica (sow in autumn). Anise, borage, marigold, fennel and dill should be sown as soon as the bed is prepared. Nasturtium (*tropaeolum*), the unripe seed pods of which are used as a pickle, might, among others, be included.

During May there will be much work to be done both on the vegetable plots and in the flower borders. The earthing up of such plants as broad beans should be carried out and the weeds kept down by hoeing. The

hoeing will also serve to keep the soil loose at the surface, and thus act as a mulching to the plants.

Plants of broccoli if well advanced should be pricked out into nursery beds, and Brussels sprouts and cabbage may be planted on the plots. The celery trenches should be got ready and the ridges planted with lettuce, or radish should be sown. The rows of peas will need sticking, and at the same time some earth should be drawn up to the stems. Where there is room, vegetable marrows should be planted out in soil which has been well prepared with some good farmyard manure. These plants make vigorous growth and could be well utilised to cover compost and other heaps which, without a covering of plants, might appear unsightly.

Annuals sown in the open should now be thinned to about six inches apart in order that bushy plants may be produced. The end of the month will be a good time for planting out stocks and asters, and bedding plants which have been well hardened off can also be put in the beds. Sweet peas should be staked as early as possible, using well branched, twiggy sticks to which the plants can easily attach themselves.

On the fruit plot the weeds should be kept down and the soil kept loose by means of the hoe. A look out should be kept for insect pests and diseases in order that attacks may be combated in their early stages. With the approach of summer special care should be taken to keep the garden and grounds in neat order. Edgings and walks will especially need care as the various operations of sowing and planting will very likely have disturbed these, and an early opportunity should be taken for putting any little irregularities straight. Labels of perennials will often need renewal, and while this is being done the labels of this season's plants should be looked to and any mistakes corrected, placing the labels carefully in lines where they may have been disturbed.



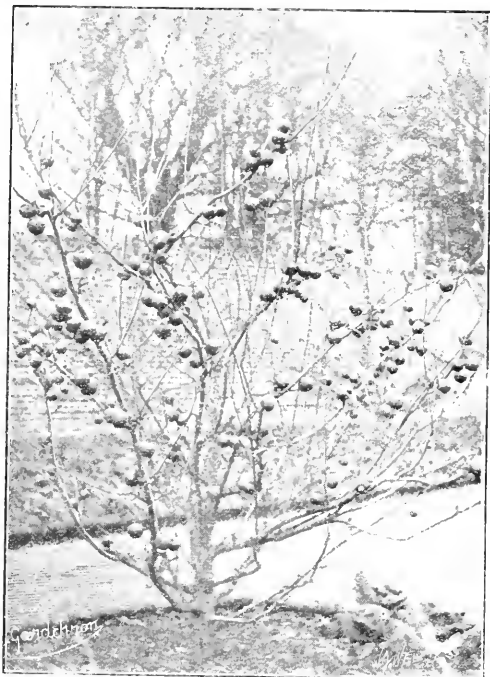
Group of Ard Cairn Seedling Daffodils (Polly Eccles and Jenny Woodhouse).

turbed these, and an early opportunity should be taken for putting any little irregularities straight. Labels of perennials will often need renewal, and while this is being done the labels of this season's plants should be looked to and any mistakes corrected, placing the labels carefully in lines where they may have been disturbed.

**MULCHING.**—A "mulch" is a protecting layer of some loose material (such as fine earth, manure, or leaf litter) placed on the surface of the soil so far as the roots of the assisted plant extends. Its benefits are (1) during dry weather it prevents a loss of water from the soil by ordinary evaporation; (2) it preserves a more equable temperature, keeping the soil cooler by day and warmer by night; (3) it supplies a certain amount of manurial matter which is washed down by rains; (4) in winter it protects the roots from frost. All plants benefit from mulching, but especially newly planted shrubs and trees.

## A Novel Apple Tree.

**I** SEND you a photograph of an apple tree, French Crab, taken on New Year's Day, 1908. The crop *one bushel* was gathered on the same day after having withstood the severe gales and frost of autumn and early winter. Not a single fruit was blown off, in fact, wind has no effect on it, and it



was very hard to separate the stems from the tree on the date named. It is a good cooking apple from April to June, and as fresh and brisk "then" as our best apples are in December. The Messrs. Seabrook and Sons, Chelmsford, brackets French Crab with Northern Greening, but there is really no comparison between the two kinds. The photo is by Robert Lindsay of Straffan.\*

The Gardens, Straffan. FREDERICK BEDFORD.



**BROMPTON STOCKS.**—This variety of stock is sturdy, fairly hardy, and bold in growth. The Brompton Stock is biennial, and succeeds best if sown in May or June in a rather cool situation where the soil is light and sandy in texture. I find it does best when sown thinly in drills or rows about 6 inches apart. When the seedling plants are about 3 inches high they should be thinned out to 6 inches apart in the rows. In about six weeks' time they should be thinned once more, this time each alternate row taken up, and so leave the remaining plants about a foot apart every way. These plants may be allowed to remain in nursery bed until the following March, when they may be ultimately planted out into the flower border.

\* We are indebted to the Editor of the *Gardeners' Chronicle* for loan of "block" of above illustration.

## The Month's Work.

### The Fruit Garden.

By GEORGE DOOLAN, Instructor in Fruit Culture, Department of Agriculture.

**ENEMIES**—In addition to aphides, referred to in the previous issue of *IRISH GARDENING*, fruit growers have many other enemies to fight against. Caterpillars of the codlin, ermine, and winter moths, and of the gooseberry and currant saw-fly, are very common, and do a lot of injury unless the trees are sprayed with a suitable spraying material. Swift's arsenate of lead is an excellent material to use; it was recently introduced from America, and is sure to be generally used as a spraying mixture when better known. Its advantages, says an American grower, are, that it is not so liable to burn the young foliage as Paris green and other mixtures; it sticks to the foliage better and longer; it is the best form in which to use arsenical poison. When prepared and sprayed according to directions no harm is done to the fruit. To check the ravages of the above pests it is most important to spray early; that old and trite saying, "prevention is better than cure," is very true in this case. Arsenate of lead is advertised in *IRISH GARDENING*.

American blight, or woolly aphis, as it is commonly called, is another serious pest, and one most difficult to get rid of when once it gets a hold. It is easily recognised by the white cottony substance usually found covering it. Young apple trees should be gone over several times during summer and autumn, and wherever the pest is noticed pure paraffin may be applied with an old paint brush, the affected part only to be painted; this is the best remedy, but in the case of large trees such treatment is not practicable, as the pure paraffin would be liable to get on the foliage and burn it. Such remedies as Bentley's insecticide or Gishurst's compound, prepared as directed for American blight, can be used; a strong syringe is better than a sprayer when dealing with this pest. Winter spraying with caustic soda, &c., also helps to destroy many of the insects.

**GOOSEBERRY SAW-FLY.**—Attacks red currants and gooseberries. A very destructive pest which eats every particle of foliage if not prevented. The grubs eat from the underside of the leaves, therefore are not noticed until several branches, perhaps, are denuded of their foliage.

**REMEDIES.**—Spraying with lime water, or quassia extract, prevents attack for the time being. Swift's arsenate of lead, if applied in time, is the best remedy.

**GENERAL REMARKS.**—If through bad weather or other causes fruit trees were not mulched as recommended in an earlier calendar, the work should not be delayed further. Anyone acquainted with fruit growing knows well the advantages of a mulch of good manure; nothing is so serviceable to fruit trees in dry weather—it protects the tender fruitful fibres and keeps them to the surface.

Keep the hoe constantly at work during dry weather, it will not allow the weeds time to grow, thus saving labour at a later period. Watch carefully for insect pests, and take measures as soon as possible to check their progress. Do not spray when the trees are in blossom; just wait a little. At end of month, if the grafts are growing well, the clay may be removed; this must be carefully done. Place a stone at one side of the clay and strike at the other side; this will break the lump of clay without injuring the union of scion and stock. Tie a stake firmly to the stock to which the young growth must be tied; this will prevent injury by birds or wind.



## The Flower Garden.

By J. G. TONER, Horticultural Instructor, Co. Monaghan.



**T**OWARDS the end of the month bedding-out will be in full swing. The subject requires careful thinking out if pleasing effects are to be obtained. Of late a good deal more freedom is seen in arrangement, and in our public gardens great skill and taste are displayed in the planting. It is, of course, quite a matter of individual fancy, and largely a question of surround-

ings, what style will be chosen, but, at all events, the use of free-growing and graceful plants—such as fuchsias, standard or pyramid; ivy-leaved geraniums, *Geranium robusta*, dracenas, and palms of various kinds—will prove very attractive if used with judgment, especially where dwarf and stiff plants form the bulk of the bedding-out material.

Ground for dahlias should now be prepared if not done already, and as these plants are very rapid growers it follows that the soil must be well manured and dug as deeply as possible. The hardening-off process must be well attended to, and if slugs abound the young plants may be protected by dusting the soil about them with soot or lime; these dustings must be renewed after rain. Perhaps a better plan would be to place pieces of perforated zinc cut to twelve inches by two around the bases of the plants in the form of a collar, and pressed firmly into the soil; these of course must be joined at the ends.

When azaleas have finished flowering every seed-pot should be removed, re-potting done if necessary, and the plants placed in a house where moist and warm conditions prevail for the purpose of making new growth. On attention to these details and the subsequent ripening of the young wood depends the number and quality of the flowers next year.

Pot, when rooted, cuttings struck in April of zonal pelargoniums, fuchsias, double petunias, and other similar subjects; three-inch pots will be sufficiently large. Use a good substantial compost, and pot fairly firm.

Carefully attend to seedlings of primulas, cinerarias, and tuberous begonias. If gloxinias have been raised from seeds they may be grown in boxes for the first season if necessary, and when the first flower opens on each plant the beauties can be lifted and potted, and the others—well give them or throw them away, life is too short to waste time on rubbishy plants.

Sow seeds of wallflowers now either in drills or broadcast, it matters little, as they must be pricked out later on; also seeds of hybrid primroses, pansies, Canterbury Bells, and quite a number of similar subjects.

This and early next month would be a suitable period for sowing seeds of the herbaceous calceolarias; sow in pans, rather wide if possible, and make just the top of the soil very fine, and let the seeds, which are very minute, be distributed as evenly as possible. Cover the pans with muffled glass, and place in a moist and shady place where a nice, even temperature is maintained, and the young plants will appear in about ten days.

Hardy annuals may still be sown, and will give a good display late in the season.

Sweet peas in their younger stages of growth require constant attention to keep slugs and snails at bay; frequent dustings of soot or lime should be given, not much at a time, but just what will colour the leaves.

## The Vegetable Garden.

By WILLIAM TYNDALL, Instructor in Horticulture, Co. Kildare.

**T**HE vegetable garden should receive much attention during this month, as not alone is there seeds to be sown but the growing crops which should be now making rapid progress will require constant care to get good results. Early thinning and hoeing of such crops as turnips, onions, parsnips, carrots, and beetroot are important, as if left long the plants in the rows suffer greatly. Make successional sowings of peas (Gladstone and Autocrat), a last sowing of broad Windsor beans, and small sowings of spinach, turnips and lettuce. Plant out onions, leeks, cauliflowers, Brussels sprouts, red cabbage, and vegetable marrows (raised under glass) as soon as possible once the weather gets mild.

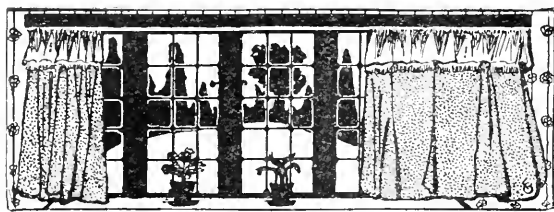
PEAS.—The main crop of peas will now be growing fast, and if they have been sown in succession a shortage at any time during the season will be avoided. Hoeing and staking will demand much time, and on light soils a good mulch of short manure will be of much assistance to the plants, preventing mildew, and producing generally a better crop and higher flavoured peas. For main crop and late peas I find it pays to prepare for them trenches much the same as for celery. If this can be done some time before sowing so much the better. After opening the trench fifteen inches wide and fifteen inches deep, fill with equal parts of well-rotted manure and good soil to within four inches of the top. Walk over to make firm. Sow seeds thinly, covering them three inches deep, and this will allow space for plenty of water if dry weather follows.

TOMATOES.—By the end of this month plants raised under glass for planting outside will be strong, with some fruits set. These, then, if well hardened off, can be planted out, up against walls facing south for preference, keeping the plants to single cordons, as these give the earliest fruit. Many pot the plants into eight-inch pots before planting out, and then plunge the pots under their rims, and give a rich top-dressing. The roots this way are restricted, and an earlier crop follows. If a few spare lights are placed over the plants against the wall it will much assist the crop ripening.

SCARLET RUNNER BEANS.—Being equally as tender as French beans, the first week of May is quite soon enough to sow in the open, and as many with small gardens prefer runner beans to dwarf, see that the soil is well prepared by opening trenches two feet wide by two feet deep, breaking up the bottom, and filling to the top with equal parts of manure and soil. Walk over to make firm. Sow the beans in a single line, six inches apart. As soon as up put a stake eight or nine feet high to each plant. Best of All is a fine variety. Have the rows at least six feet apart. Runner beans can be grown as dwarfs by pinching out the shoots as they start, and repeating the operation every time the plants start.

HERBS.—If not sown last month, seeds of the following herbs should now be sown in the open border where they are to remain, or they can be transplanted—viz., fennel, borage, thyme, marjoram, &c. Sweet basil, being tender, is better raised under glass, and when hardened off planted out. Plants of the following:—mint, sage, thyme, rue, tansy, tarragon should be planted at once, if not done last month.

SLUGS.—These, if the weather is warm and damp, will cause much destruction to many crops, and probably the most effectual way of preventing them doing much harm is by carefully gathering by the hand every morning, and if such traps as bran stuped is laid in heaps many will be quickly caught.



The Reader.

## The Rock Garden.

THERE has recently appeared a book entitled "My Rock Garden," by Mr. Reginald Farrer, which we feel certain will be welcomed with enthusiasm by all true lovers of hardy plants. It is a *book* in the best sense of the word, written by one who is not only thoroughly conversant with his subject, but imbued with an ardent love of it, and who possesses moreover the power of expressing clearly and forcibly what is in his mind. He sets out with an avowal of his distrust of dogmatism, declaring that nowhere is it more misplaced than in horticulture. The first chapter deals with the formation of the garden. The Japanese, he admits, are "the absolute masters of rock garden—before whose names one must go helpless to one's knees in admiration." "They," he says, "care more for congruity of vegetation in the scheme than for flowers as flowers." Yet, strange to relate, though he holds that of Alpine plants and the cultivation of them for their own sake the Japanese have no notion, he has to admit that, while the Japanese have common names for all, even the most rare of their Alpines, few of our most rare and beautiful native plants are known by any other than the botanical name, while of these the majority are known only to botanists. This appears rather contradictory. The fact seems to be that the Japanese landscape gardener, for whom he expresses such devout admiration, selects some piece of nature on a grand scale and proceeds to reproduce it within the confines of his garden. It follows that, if he is to be consistent, he must not only copy the rock formation—a point which our author is very insistent on—but he must likewise attempt to reproduce the plant associations. This probably has had something to do with the production of those pigmy trees we are so familiar with from that quarter. Given the problem to reproduce a landscape on a tiny scale, he durst not leave out his trees. On the other hand, giant pines would be ridiculously out of proportion in this miniature landscape. He overcomes the difficulty by an elaborate and tedious process of dwarfing; while, at the same time, he succeeds, to a marvellous degree, in retaining the characteristic form of the species when normally developed. So with flowers; they must necessarily enter but sparingly into his scheme, otherwise there would be too much detail. The Japanese gardener is indeed an artist, and this because he has learnt the value of things. Above all, he must have congruity if he is to create an entirely satisfying picture.

While, as we have remarked, the writer holds that it is necessary to follow some geological formation in the plan of the rock garden, he contends that it is quite otherwise with the vegetation to be employed. "No plant," he says, "comes amiss to the purpose if only it is pretty and suited to its place in size and habit." "If *Ourisia* from Chili will thrive in one corner, there he shall go, and if I shall so please he shall have the Japanese *Lilium rubellum* underground, and the Siberian columbine on his left, and the Canadian phlox on his right; yes, and at the back shall be Chinese bamboos and Himalayan rhododendrons." Now, it would appear to us that, if you are to

imitate a mountain gorge or say a Matterhorn, you must not stop with the configuration of the land; you must also allow that there is such a thing as plant geography, and that there are natural associations among plants that harmonise with the physical character of the site, controlled also by various other factors.

There is, however, only too good ground to justify his strong language of revolt against the hideous jumble of stones and earth, not to speak of glass and clinkers, that is usually called a rockery. He admits that the Kew Rockery, in which we have never detected any theory of geological formations, "offers everyone a model." It is indeed difficult to overpraise the rockery at Kew. It is the work of an artist who uses rocks with a purpose it is true, but not as a demonstration in geology.

With the objection he urges against double flowers we personally are inclined to agree, though many must hold it to be rank heresy. He further professes a general preference for botanical over popular names for plants, another heresy, which he skillfully defends, contending that as a rule Latin names are "more euphonic and invariably more descriptive than any English equivalent, where it exists."

When he enters on his task of describing the denizens of the rock garden he handles the subject with a peculiar felicity of description, though somewhat tinged by an eccentricity of expression, which, however, none of those for whom the book is intended would find fault with. He speaks of his plants as personalities. In one place he interrupts his subject to remark that "a well-bred Alpine appeals to one primarily as a personality, an interesting, shy, rather proud character." He speaks of them as "children" to be loved "for their individualities, their little ways, their personal appeal, not at all for any accident of gaudy colour or obviousness."

We have nothing but admiration for the way in which he introduces the nature of the plant's requirement. This he does by picturing it in its native environments. Here is a sample—"The *Columbines* as a race belong to the lower, lighter scrub of Alpine woods all along the great mountain chains of the world. Remember how they lodge and dodge behind bushes on their native hills when they can, and give them such similar protection in the garden." But every page bristles with sentences which tempt us to quote.

In the middle of a long chapter on Saxifrages the author introduces, apparently by way of relaxation to the reader, the subject of wall gardening, and in no uncertain voice condemns it altogether as an end to set out with. For, he contends, "it sins against the cardinal rules of art and of horticulture," because "it aims at being two things at once—a wall and a garden." "The real dignified wall garden is that which sets out to be a wall and a wall only." "Such," he remarks, "are the great walls of St. John's at Oxford," where "the only gardener that they know is Time, who sows them cunningly, with the result that they end by being doubly beautiful—a magnificent wall in the first place; and then, accidentally, a garden of pleasant flowers."

These few comments of ours we confess are entirely unworthy of the subject that has suggested them, nor can our quotations convey an idea of the charm that pervades the book. We can only express our thankfulness that the book has been written. It may do something to restore that conception of a garden which, to quote his words, "the sixteenth and seventeenth century knew," before the appearance of the "Jardin Anglais," with its "sham landscapes, sham wilderness, sham ruins, wobbling walks," &c.; or of the Victorian era, with the scarlet pelargonium as "the National flower," before which "and its dread assessors, blue lobelia and yellow calecolaria, all the gracious, beautiful flowers of long ago" took flight "like fairies at the approach of trippers": when *Lilium candidum*, daffodils, and crown imperials "were pitchforked over the wall" to make room for "dingy perilla and alternanthera."—W. B. B.

**THE INSECT BOOK.** By W. Perical Westell, F.L.S. Illustrated with photographs by R. B. Imirson. London: John Lane. Pp. 120. Price, 3s. net.—In this attractive and excellently printed volume Mr. Westell has succeeded in giving much interesting information about our common native insects in a small compass. After an introductory chapter, in which life-history and bionomics are much more prominent than structure, the author deals with insect study as it may be pursued in the garden, by the water-side, in the woodland, among meadows and lanes, and in the dwelling-house. This topographical treatment of the subject is well advised, and the insect types likely to occur in each locality are brightly described. The chapter on garden insects contains notes on green-fly or aphids, and the predaceous insects that keep them in check. For an elementary lesson on the living creatures that he turns up in his daily work the gardener could not do better than turn to this chapter. A special word of praise is due to the photographs, which are excellent and well reproduced.—G. H. C.



## Bee-keeping.

By T. MAGUIRE, The Orchard, Enniskillen.

**I**F not already done, spring cleaning should be attended to at once. In last month's issue, by a compositor's error, the opening paragraph on bee-keeping read as if spring cleaning were intended merely for the purpose of uniting weak stocks, which, of course, would be absurd. Every hive should be carefully washed and scraped, free of propolis, both the strong and the weak, and the bees will work with renewed vigour afterwards besides living under more healthy conditions.

May is probably the most critical month in the bee-keeper's calendar. Unless the weather be fine, feeding must be regular and liberal. The stock, growing in strength, require an increased amount of food; the quantity consumed by a full-sized colony is surprising. Some people last year, when they saw their stock unusually strong, refrained from feeding in the bad weather, and were surprised afterwards to find that the larger stocks had suffered most severely. This, however, is always what happens in such cases. The stronger the colony, the more feeding it will require, if there is no honey flow. Liberal feeding in May will pay for itself many times over.

Strong stocks will soon become pressed for room, and will swarm unless allowed ample space. As soon as the entire frames are crowded with bees, supers should be prepared. As a rule, the proper time to put on a super is when the bees have begun to draw out the tops of the combs with new white wax to provide additional storage. Other signs are, that honey is coming in in quantity at the same time, and it is necessary that the weather be sufficiently warm to avoid danger of chill from the increased space provided. In the case of an excessively strong colony, it may be necessary to super before the flow comes merely to prevent swarming. It is a great mistake, however, to put in supers before the stocks are strong enough, as the increased space may chill the hive so much as to stop breeding in case the weather turns cold.

If a stock has built queen cells in anticipation of swarming, advantage may be taken to rear a young queen without splitting up the stock into nuclei. This can easily be done by moving the frame containing the best queen cell behind the dummy, with two other frames: one of brood and one of honey. A small entrance and flight board must be provided at the back. The frames can be replaced by sheets of foundation in front, as space allows (hives taking thirteen frames are best for this operation), and care must be taken that the queen

is left in front. If a strip of excluder is placed on the three frames at the back, that portion of the stock can be allowed to work in the supers with perfect success, and a young queen will be duly raised and mated. The process was fully described in last June number of *IRISH GARDENING*, and is for amateurs probably the simplest and most convenient method of queen raising.

Swarming time is the best period to get rid of foul brood. The diseased stock should be worked up to swarming point and an artificial swarm made, hiving the bees in an empty box on the old stand for forty-eight hours, or seventy-two hours if the weather be cold; at the end of that time the swarm having used up all the diseased honey it carried can be put into a proper hive with full sheets of foundation, feeding with medicated syrup until established. The hive containing the old combs should be moved to another stand. After twenty-one days all the young bees in it will have hatched out, and a young queen probably will be in possession. This stock can then be shaken out into a box for forty-eight hours, and after that hived on sheets of foundation like the first swarm.



## Window Boxes.

**TOWARDS** the end of this month the window boxes for summer display will need attention, and a few hints, especially to town dwellers, may be useful.

To those who have never started window gardening, we would advise that they begin straight away. The expense is not great and the trouble is trifling. The pleasure which results from it well repays both. It is an easy matter to get or make the boxes, and paint them a dark green. Care should be taken to secure them well to the wall to avoid any disaster. The best soil to fill them with is one made of turfy loam mixed with well decayed farmyard manure. The mixture should be lightened by a little sand.

The boxes must have holes at the bottom, and before putting in the soil these holes must be covered with crock (pieces of broken flower pots) to prevent the holes being stopped up. Fill the boxes to a short distance from the top.

You can now plant whatever your fancy or means direct, having an eye to the colour scheme and the varying heights of the plants you may decide to use. The following may be suggested:—

1. An old and very common one—perhaps the commonest in towns, but certainly effective—white *Marguerites* at the back, scarlet geraniums towards the centre and blue lobelia to the front.

2. Carnations—Plants to be well staked at the back. Care must be taken not to show the stakes. The plants to the front should be left free so that they fall over the front side of the box. This can be done in various colour schemes with great effect.

3. The one I myself intend to follow this month in windows facing south is a one-colour scheme. Scarlet *begonias* with an edging of scarlet *Tom Thumb Nasturtium* to fall over front face of box.—E. A.



**SEAKALE.**—If you wish to force these plants into early use in the open ground it is necessary to give them artificial heat by covering the crowns in autumn with pots or boxes and heaping over them a mixture of leaves litter and manure. About January a further layer of hot manure is added, when from four to six weeks after "sticks" should be ready for cutting. After cutting they may be again covered with leaves, &c., until they again start growth. A little manure may be forked round the plants. Do not allow them to flower. The process may be repeated for several years.—*Answer to "Glin."*

## Correspondence.

### A RETROSPECT.

DEAR SIR,—I have been a reader of your journal since it commenced, and have enjoyed it very much, as, I am sure, your readers generally do, the articles being short, crisp, and always thoroughly practical and up-to-date. This latter qualification may therefore prevent your printing "a few experiences of an old amateur in raising some new things" of gardening interest. I have since boyhood had a great interest in flowers and plants of all kinds, but up to some forty years ago, when I got a small garden opposite the then Farrel's Nursery, I had no opportunity of personally growing them, and I have often been surprised since how much can be done in a small space with a couple of lights and a small glass structure with an old-fashioned flue. At that time the great *fiore* was the raising of tricolours and bronze geraniums, so I tried my luck at cross-breeding, and by careful crossing I could tell how many showing tricolours or bronzes would rise out of every dozen seeds sown. I was very fortunate in raising a tricolour, which was then, and still is, one of the best in existence, and it has a history. I sold it for £5 to the manager of Farrel's Nursery, and he got it at lifting time, but in a week or two it disappeared; next year I found it not far away, and was tried to be persuaded that it was brought from England, but its character was too well fixed in my mind to have the slightest doubt. I think it has disappeared from that place though not lost, for to my surprise two years ago we got a batch of it from London under a new name. With the bronzes I never could come up to McMahon, which is rather scarce now. I think I was the first to raise *Primula japonica* in quantity; it was sent out by Wm. Bull about 1870, and when I got it cost 10s. 6d. each. When I got seed I sowed as soon as ripe, and took the care, which all primulas require, of never letting it get dry afterwards; after a rather long wait it came up, covering the pan. When just fit to prick off, Mr. Cochrane, then traveller for the Dicksons, of Chester, who will still be remembered by many old gardeners in Ireland, was out calling at Farrel's, and the manager, James Dickson, brought him over to see my little place, and, seeing the pan, in his hard English voice asked, "What primula is that?" "Japonica," I answered. "No it is not," he said. Mr. Dickson then said, "Oh! Mr. Cochrane, you may depend on Mr. Watson." "Very well, then," he said; "I want two-penny worth before I leave." He afterwards wrote from Chester to send all I could spare, which I did, and was pleased with the price. The remaining smaller plants I sold to a Dublin nurseryman, now *non est*, for 12s. per dozen. This, my first transaction for cash, may have afterwards led me into the nursery trade. I tried hard to cross it with other primulas, but miserably failed. I have found the primula the hardest chap I have tried to yield up its secrets of cross-fertilisation.

I then tried to raise *Todea superba* in quantity, for I knew that one or two chance seedlings had been picked up in the Botanic Gardens, but I also knew that Mr. Fraser, Edinburgh, the introducer of the *todeas*, had failed to raise any. By the kindness of old David Orr—who was then in charge of the flimsy fern-house—I got one pinule from three different plants, examining them as well as I was able with a small pocket lense to see that the spores were ripe, and put them for a week or so in my vest-pocket to shed the seed. The pan was then filled with peat, pressed firmly, and thoroughly wetted; but fearing that there might be spores of grosser growing ferns floating in the atmosphere I took it outside and sowed, and with a well-fitting square of glass covered the pan and set it into a shady part of my little house with no heat, and in about six weeks I was

surprised to find the pan covered with a green scum, but no true prothallus that I could make out. In about a month this green scum disappeared, and I thought I was lost; all the same I was determined to try patience, and set the pan back again. This determined patience saved me, for in spring the true prothallus was showing in thousands, and after the true character of the frond was distinct I wrote to my late friend, Malcolm Dunn, then of Dalkeith, formerly for many years at Powerscourt, to ask him if it was common to raise *T. superba* from spores, as I had got it in great quantity. He, knowing of Mr. Fraser's disappointment, went straight to him with my letter. From Mr. Dunn's reply I suspected he thought that I had mistaken *T. pelucola* for *superba*. I then posted a few seedlings of each, explaining that Mr. Fraser would easily see that the pinules of *superba* were incurved, and *pelucola* were flat. I then got a gushing letter congratulating me on being the first to raise *superba* in quantity, and that if it was not a trade secret Mr. Fraser would be much obliged for a note of my plan of operations. This I gave, being then only a small amateur, and I was told afterwards that he raised them in thousands, and sold them in London—which he had a perfect right to do; but I thought then, and do still, that he might have mentioned my name as the first manipulator instead of "by myself I did it."

One year I was fortunate in raising from freshly-imported seed, *Primula sikkimensis*, which, though not new, was comparatively rare in gardens. I grew it for long after in open borders. It has rather a long flower-stem with an umbel of pale yellow flowers, and beautifully scented.

*P. cashmeriana*.—This was quite new to gardens, and being hardy was very much appreciated, and still is with its bold flower-scape, and in autumn the back of the leaves densely covered with gold or silver farina. It was exhibited at our 1906 Spring Show under the name *Denticulata*, and is altogether distinct.

*P. capitata*, raised for the first time, is a gem of the first water, with a beautifully-formed head of lilac flowers rising from a nice rosette of almost pure white leaves. The only trouble in growing it is its detestation of damp or a close atmosphere. I found it easy to grow in cold frames well tilted in the front so that the air got all round it, always taking care that no drip should fall on the flower. The florets are so close that the slightest damp will cause rot to set in.

*P. rosen*, also new; a bright little gem and quite hardy, but to do it well it requires a damp or peaty soil.

Now, Mr. Editor, this lucubration may do for this time, and hope you can read my now scratchy writing. Clontarf Nurseries. WM. WATSON.

### REVIEW OF BOOK ON ROSES.

SIR,—As a lover of books and roses I read with much interest the review of Rev. J. Pemberton's book on Roses in your last issue. I am sure the life experience of such a veteran rosarian is worth perusing and the book deserving of a place in the library, but the present price makes it prohibitive to working gardeners. One passage in the book would lead the reader to think that the late Mr. Templeton was awarded a prize by Dublin botanists just for discovering a species of rose peculiar to Ireland, but this is not so. This gentleman spent many years working out the flora of the northern counties of Ireland, and the impulse he gave to botany caused the citizens of Belfast to establish a botanic garden for that city in the year 828. After he had served his day and generation, and gone the way of all flesh, the manuscript notes he left were made use of by Dr. Dickie in 1864, when compiling his "Flora of Ulster." As Mr. Templeton's name appears again in the latest book on Roses it may be truly said of him that he has lived beyond the grave.

KINGSTOWN.

## BEE-KEEPING MADE PROFITABLE.

Every Bee-Keeper who desires success should read

# THE IRISH BEE JOURNAL

(Established 1901).

*Official Organ of the Irish and Affiliated, Cumberland, and Perthshire B. K. Associations.*

**THE LARGEST PENNY BEE PAPER IN THE WORLD.**

Received with enthusiastic approval and congratulations at Home and Abroad.

"One of the brightest in the world."—*Gleanings (American).*

"One of the liveliest and best Apian Journals in all Europe."—*American Bee-Keeper.*

"Could not be equalled."—J. FAHY, Kilkenny.

"Facile Princeps."—Rev. W. V., England.

Monthly 1d.; 1s. 6d. per Annum, Post Free.

From the Office, IRISH BEE JOURNAL, Lough Rynn, Dromod, and of all Newsagents.

FOR

# Flower Pots

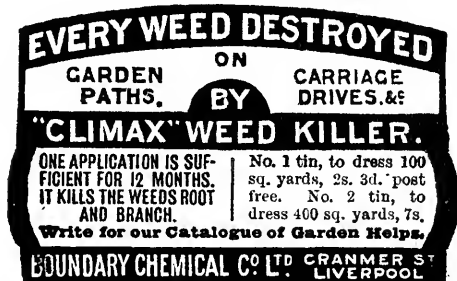
AND

# Horticultural Pottery

WRITE

**G. J. OWENS,**  
**Brick and Pottery Works,**  
**ENNISCORTHY.**

Agents for Dublin and District:—Messrs. E. BROWETT & SONS,  
7 Upper George's Street, KINGSTOWN.



## BEE-KEEPERS.

**Bee-hives** and all Appliances  
of the most modern Pattern  
supplied. Write for list.

**Irish Producers, Ltd.,**  
105 Capel Street, Dublin.

## JOHN FALCONER,

LITHOGRAPHERS, PRINTERS,  
BOOKBINDERS, PUBLISHERS,  
AND STATIONERS,

**B**EG respectfully to draw the attention of Advertisers to their special facility for producing in first-class style, and at a reasonable cost, Seedmen's and Nurserymen's Catalogues, illustrated either in black or by the three-colour process; Price Lists, Attractive Folders for inserting in Magazines, &c., &c. All work entrusted to our care is executed by skilled and competent workmen, and the resources of our Establishment, both in suggestion and first-class material, are at their command.

**ESTIMATES FREE ON APPLICATION.**

**Specialities:** MUSIC PRINTING IN BOTH NOTATIONS, AND WORKS  
IN THE IRISH LANGUAGE.

**. . 53 UPPER SACKVILLE STREET, DUBLIN . .**

# *Power's Tested Seeds*

AS SUPPLIED TO  
HIS MAJESTY THE KING

---

PURITY AND GERMINATION GUARANTEED.

---

*Special Quotations on Application.*

---

## **WM. POWER & Co.,**

Seed Merchants and Nurserymen,

## **WATERFORD.**



JUNE 1908.

TWOPENCE.

# Irish Gardening

## Contents

	PAGE		PAGE
Club-root Disease . . . . .	81	Roses . . . . .	90
Artificial Manures . . . . .	82	Tobacco . . . . .	90
The Herbaceous Border . . . . .	84	The Month's Work . . . . .	91
Goat's Rue . . . . .	85	The Potato Onion . . . . .	92
Water in Relation to Soils . . . . .	86	Propagating Carnations . . . . .	93
Current Topics . . . . .	86	The Reader . . . . .	94
Rock Plants . . . . .	87	Daphnes . . . . .	94
Violets . . . . .	87	Bee-keeping . . . . .	95
The Watering of Plants . . . . .	88	School Gardening . . . . .	95
Notes . . . . .	89	Answers to Correspondents . . . . .	96

### DUBLIN

PRINTED AND PUBLISHED BY JOHN FALCONER, 83 UPPER SACKVILLE STREET.  
OBTAINABLE AT RAILWAY BOOKSTALLS AND FROM NEWSAGENTS THROUGHOUT IRELAND.  
WHOLESALE AGENTS: MESSRS. EASON & SON, DUBLIN & BELFAST:  
GEORGE VICKERS, ANGEL COURT, STRAND, LONDON.





## WINDOW GLASS.

Polished Plate for Shop Windows.

Ornamental Glass of all Descriptions.

Horticultural Glass at Lowest Rates.

## DEATH TO THE WEEDS.

HOYTE'S WEED KILLER.

*Strongly Recommended for the Destruction of Weeds, &c.*

Price, 2s. per gallon; 5 gallons, 1s. 6d. per gallon; 10 gallons, 1s. 3d. per gallon; Original 40-gallon casks, 1s. per gallon.

HOYTE & SON, The City of Dublin Drug Hall,  
17 LOWER SACKVILLE STREET, DUBLIN.

**LAWN MOWERS,  
WIRE NETTING,  
GARDEN REQUISITES.**

**S. W. PAINTS  
FOR FARM AND GREENHOUSE.**

THOS. DOCKRELL      SONS & CO., LTD.,  
DUBLIN.

"Has stood the test of a quarter of a century."

# THOMSON'S Vine, Plant, and Vegetable MANURE.

Only Medal,  
Edinburgh, 1886.



Gold Medal,  
Edinburgh, 1891.

The result of long Practical Experience. Unrivalled  
for all Purposes. This valuable Manure is  
yearly growing in public favour.

ALSO  
THOMSON'S SPECIAL  
CHRYSANTHEMUM MANURE.

Perfect Plant Foods.  
SOLD BY ALL SEEDSMEN.

Price Lists and Testimonials on application to  
SOLE MAKERS—

WM. THOMSON & SONS, LTD.,  
Tweed Vineyard,  
CLOVENFORDS, GALASHIELS, N.B.

# NITRATE OF SODA

In 4 lbs. Tins for Garden Purposes  
At 1s. each. By post, 1s. 6d.

Can be had in DUBLIN from . . .

Messrs. DRUMMOND & SONS, Ltd., 58 Dawson Street

" A. DICKSON & SONS, Ltd., 61 Dawson Street

" HOGG & ROBERTSON, Ltd., 22 Mary Street

" SIR JAMES MACKEY, Ltd., 23 Upper Sackville St.

" THOMAS MACKENZIE & SONS, Ltd., 212 Great  
Brunswick Street

" EDMUNDSON BROTHERS, 10 Dame Street  
THE ASHBOURNE COMPANY, 15 Parliament Street

In BELFAST—

Messrs. ALEXANDER DICKSON & SONS, Royal Avenue

In BALLYMENA—Messrs. SMITH & CO.

Seedsmen and Manure Dealers can get these Tins in Cases of not less  
—than two dozen, at wholesale rates, on application to—

**JOHN SIMPSON, 15 Lr. Sackville St., Dublin**

# IRISH GARDENING



A Monthly Educational Journal devoted to  
the Advancement of Horticulture in Ireland



## Club-root Disease.

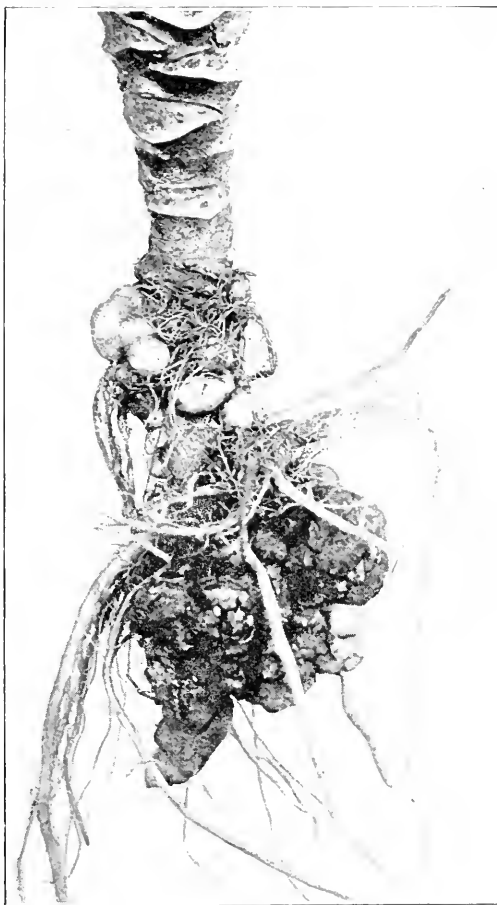
**C**lub-ROOT is a very troublesome disease in cabbage, turnip, and other cruciferous crops. It begins with tiny swellings on

the roots of the young plants, and as the plants grow bigger and bigger the swellings enlarge more and more. At last, when the affected parts of the roots have attained an enormous size, they gradually die, and then rapidly pass into a mass of soft, putrescent matter.

What is the cause of all this? What excites the root to such extraordinary growth, and why does it all end in the early and rapid decay of the affected parts? The cause is a particular kind of fungus that enters the plant through its young and delicate roots, establishes itself in the living cells of the softer tissues, feeds upon the nutritive sap of its host, and causes intense local irritation. The fungus is not of the usual thready type; it consists simply of a slimy substance, and this, after it has run its brief life in the cells of the root, gets transformed into spores. The spores are formed when the exhausted cells of the sorely harassed root die; they are almost inconceivably minute, so that even in a small piece of the rotten material the number of these spores must be many millions.

Once the tissues die, decay rapidly sets in; hence the offensive condition of the attacked root in an advanced state of the disease.

Let us consider these briefly told incidents in the life of the clubbing fungus with a view to the better protection of our cruciferous crops against the attack of this dreaded enemy. In the first place, we must remember that the *cause* of the disease is this particular fungus, that if there is no attacking parasite there is no clubbing. In the second place we know that the infection comes from the soil—always from the soil. How does the soil get infected with the spores? That is easily answered. The soft, rotten roots containing such enormous numbers of spores readily break up and mix with the soil, and so it becomes peculiarly unhealthy for any cruciferous crop. In such a soil no crop of cabbage, cauliflower, Brussels sprouts or turnip can be expected to escape clubbing. The spores may lie dormant for months or years, but sooner or later the living content will become active, burst the spore



Club-root disease in a plant of Brussels Sprouts.

The rounded swellings at the base of the stem have no connection with the fungoid disease; they are due to the attacks of a beetle.

case, creep out, and enter the root of any cruciferous plant within its reach. And so the trouble is passed on. From this the reasoning gardener will see how very important

it is to keep a look out for the first appearance of this fungus, and when discovered to carefully dig up the affected plants before the final rotting stage is reached, and *burn them*. This he would do to prevent the infection of the soil.

The roots of all transplanted Brassica should be examined, and if clubbed (as they frequently are) they should on no account be planted, but destroyed by fire. Bought plant particularly should be examined to prevent the introduction of the disease into gardens free from its infection. It should also be remembered that cruciferous weeds, such as shepherd's purse, and flowers, such as wall-flowers and stocks, are also liable to the disease.

Once a soil gets badly infected it is a most difficult matter to effect a remedy. One plan is to stop cropping it with cruciferous plants for several years, the idea being that the spores will gradually die out for lack of a suitable host. But this course does not always result in success, as the spores seem to have very great powers of resistance.

The best remedy yet discovered, perhaps, is quick-lime. One reason for this appears to be that the fungus seems to thrive best in an acid soil, and soils frequently and heavily manured with dung are often acid. Quick-lime, as everyone knows, corrects acidity, and a heavy dressing will do more than neutralise the acid—it will render the soil alkaline, and alkalinity is unfavourable to the success of the club-root fungus. But the lime must be freshly burnt and in a caustic condition when applied to the soil. It must be applied immediately after the removal of the diseased crop, and it must be thoroughly worked into the soil so as to secure its universal distribution throughout its mass.

Swellings are frequently seen on the base of the *stems* of cabbages and Brussels sprouts, and on the upper part of the "root" (which is really the lower part of the stem) of the turnip. These lumps are often spoken of as "club-root," but they are not caused by a fungus at all. They are more of the nature of galls, and are caused by a particular kind of beetle. The beetle pierces a hole in the stem and lays an egg there; this egg hatches out into a grub, the presence of which causes the irritation that induces the formation of the gall. In time the grub bores a hole to the surface and escapes. But this is "another story."



ROSEMARY.—The common Rosemary is a well-known plant in old gardens. Rosemary tea infused from its leaves is an old-time remedy. A prostrate variety (*Rosmarinus officinalis prostratus*) was distributed some years ago by Mr. Smith of Newry. It is well suited for rockery work; its slender sprays, furnished with pointed leaves, hang gracefully over the stones, and form a very pleasing sight, especially when carrying its pretty little purplish lilac flowers. It can be propagated by cuttings.



## Artificial Manures :

Or, "Back to the Land."

By JOHN W. McKay, A.R.C.S.I., Instructor in Agriculture for the County of Dublin.

THAT plants require a number of substances to enable them to reach full development, and that of these substances they are most likely to find difficulty in obtaining the requisite supply of nitrogen, phosphates and potash, is now generally recognised,\* the cause being the steady removal of these materials from the soil in various ways; all crops remove them to a greater or less extent; then drainage water is further responsible for considerable loss, and in the case of nitrogen a portion passes into the air when animal or vegetable matter rots, but, with the latter exception, the soluble part of these substances is ultimately carried to the sea, and would appear to be lost. Nature's policy seems to be to allow of no waste and to turn everything to useful account, and therefore it is likely that some provision will be made for the preservation and eventual replacement of these materials.

If this be so, how are they again recovered? We find the answer to this in the large natural supplies of materials which, when treated by processes more or less simple, are used by cultivators of the soil for replacing its lost fertility, and are known by the general description, "artificial manures." This term conveys an erroneous idea to the minds of many, who imagine that the substances referred to are unnatural and unsuitable as supplies of food for plants. A consideration of the source of these "artificials" will, however, serve to dispel any ideas of the kind.

On many of the rocky uninhabited islands off the coasts of South America and Africa innumerable sea birds congregate for breeding purposes, and as the rainfall is small in those districts the droppings of these birds, together with the bones and other remains of fish on which they feed, and eventually their own carcasses, have been accumulating for ages. When these deposits are partly decayed and

\* See "Manuring of Crops," p. 50, in April number of IRISH GARDENING.

dried by sun and wind they assume the well-known form of guano, which was the first artificial fertilizer or "bag manure" to be used in this country. Guano contains a considerable quantity of phosphates, a small amount of potash and nitrogen in smaller or greater quantity according to the amount of rainfall to which the deposits have been exposed.

The bulk of vegetation is designed to aid in nutrition and growth of animal bodies. When the latter decay or are consumed by other animals, the hard, bony skeleton usually remains behind, obviously consisting of materials which have been removed from the soil. That they can be ill-spared there is shown by the healthy vegetation which springs up when the bones are broken and scattered over its surface. Their value is due to the large amount of phosphates which they contain, these phosphates being present in a form that only very slowly dissolves in the soil, even when the bones are finely crushed and applied as bone meal or bone flour. In order to make the phosphates of more immediate use to vegetation, bones are often dissolved by vitriol, which changes the phosphates into a condition that is easily dissolved by the water in the soil, and thus enables the crop to make use of them at once. Bone superphosphate or dissolved bones is the name given to the manure produced in this way. It is a very valuable manure, as it contains, in addition to the phosphates mentioned, a small amount of nitrogen. It is at once apparent that the supply of bones for the production of this manure must necessarily be limited, while there has been an increasing demand for this class of fertilizer, as cultivators of the soil realised the benefits to be derived from its use. To keep pace with this increasing demand, the manure manufacturer was forced to look elsewhere for the means of producing phosphatic manures; this he found in deposits of phosphatic minerals which were discovered in various parts of the world—in England, where the small deposits were soon exhausted; France, Belgium, Spain, Algeria, United States and Canada; the present day supplies being mainly obtained from the last-named countries. The phosphates are present in these rocks in an insoluble form, and must be changed before being of any value to plants. The necessary change is brought about by grinding the rock and dissolving it in strong sulphuric acid; the resulting product is the well-known, and now widely used, superphosphate of lime, or mineral superphosphate. The remains of fish, teeth, bones, &c., are often found embedded in these rocks, indicating that they had an animal origin. It seems probable that they were deposited on submarine banks which had been frequented by fish for long periods, and that

the accumulated skeletons were covered with sand and mud, and finally consolidated into rock.

Varying amounts of phosphates are found in many ores of iron, and if allowed to remain the quality of the manufactured iron would be seriously injured. Lime possesses the power of attaching itself to those phosphates, and advantage is taken of this to remove them. Iron ore, coal and limestone are placed in the iron furnace together, and the great heat required to melt the iron causes the phosphates and lime to unite in the form of a slag, which is then removed from the furnace. This slag hardens into rock-like lumps on cooling, and when these lumps are crushed into an extremely fine powder the product is sold as "phosphate powder," or as it is now more generally known, "basic slag." Besides phosphate of lime, this manure also contains a certain amount of ordinary lime which, no doubt, adds considerably to the usefulness of the manure in many cases.

[To be continued.]



### Zonal Pelargoniums as Window Plants.

I do not know of any window plant which gives better returns for the small amount of labour needed to bring it to perfection than the Zonal Pelargonium. When well grown those plants will continue to develop an abundance of bloom almost the whole season through. Cuttings, if inserted this month in sandy soil, will be well rooted by the end of August. In potting use a compost of three parts fibrous soil, one part leaf-mould, with enough sand to keep the whole porous. Plenty of drainage should be afforded by means of crocks, with moss or half-decayed leaves over these, so as to allow the escape of superfluous water. Careful watering is, perhaps, the most important factor in their management, and in many cases there is a tendency to overdo it—very often from a too eager desire for their welfare. The only general rules that can be followed are—In winter keep the plants rather dry; in spring increase the quantity as they grow and as the sun's power increases, keeping them in a medium state of moisture; in summer apply water daily, and in autumn apply less as the days shorten. A little observation when the plants are growing will soon give the proper clue with regard to watering. In order to promote a bushy growth and an increased production of flowers it is essential to stop the growth of the leading shoots; this stopping, which is identical with pinching, should be done when root-action is active; the shoots pinched will then push growths from dormant eyes lower down. These in due time, if afforded plenty of air and light, will give a good display of bloom, and repay the cultivator for the little attention given to them during the growing season. — JAMES GRENNAN.

**SALVIA.**—There is quite a host of salvias (among others being the common sage), some of which are hardy, and others require a greenhouse. These last include some very showy flowers that are at their best in autumn, and afford a pleasing variety to the chrysanthemums which are so conspicuous at that season. They are *Salvia bethelli*, pink; *S. boliviana*, scarlet; *S. pitcheri*, blue; *S. rutans*, red; *S. splendens*, scarlet. All are easily raised from cuttings of ripened shoots in spring, and potted on, much as one would the fuchsia. Of late years the salvias have been little grown, but it is difficult to understand why flowers so brilliant in every way during the winter months are not more considered. — GEO. FRASER.

## The Herbaceous Border.

**P**LANT out as soon as possible this month half-hardy annuals, raised under glass, such as stocks, asters, French and African marigolds. After summer bedding is completed there



The Oriental Poppy.

will be a variety of odd plants left over, such as geraniums, lobelias, violas, ageratums, petunias, begonias, calceolarias, heleotropes, &c., which will be found very useful for filling up spaces where the foliage of narcissus and other spring bulbs is turning yellow. Mark clumps of bulbs before the foliage has dried up if the intention is to lift and store the bulbs. This work can be completed as soon as the foliage has dried. When the bulbs are lifted place them on a hard, dry surface for some days until they are thoroughly dried, and then store them in a dry, airy loft or room until the planting

season comes round again.

Early June is a first rate month to sow seeds of biennials, such as wall-flowers, pansies, sweetwilliams, canterbury-bells, honesty, antirrhiniums, forget-me-nots, intermediate and Brompton stocks, polyanthus and hybrid primroses, hollyhocks and silene. Prepare a fine seed bed and sow in lines. Some growers prefer to sow stocks, hollyhocks, polyanthus and hybrid primroses in pans or boxes, in a cool frame, and to transplant the seedlings when fit into nursery beds. As soon as the flowering season of the double daisies and polyanthus is over, lift and divide the plants. Plant again in the border or into nursery beds. By dividing, the size of the flowers is increased. From this month up to late autumn the herbaceous border should look very effective, providing a good selection of plants for summer and autumn have been planted by the owner.

FRANK HUDSON.

### The Cactus Dahlia.

THE Cactus dahlia for home decoration is a charming flower, well adopted for decorative purposes. One strong reason why it should be freely grown is the cheap rate at which a plant may be bought; furthermore, the

tuber is practically everlasting, and with anything like ordinary care will return abundance of bloom.

Amongst its many charms are the marvellous variety and exquisite beauty of form of the flowers, the florets in some cases being straight and in others twisted and incurved.

Where dahlias are grown for cut flowers only a piece of ground in the open or in the kitchen garden is the best place. For decorative effect in the garden a border or beds may be chosen. After marking out the positions of the plants, dig holes about a foot or more square and deep, then place in the bottom a good spit of old rotten manure, filling in with soil.

About the end of May or the first week in June will be the time to plant out. After planting see that a saucer-like depression is left around each plant to prevent waste in watering. As the growth of the plants proceeds the shoots must be secured by fastening them to centre and side stakes. This is most important, as the dahlia suffers more than any other plant from rough winds.

BORDER PINKS are great favourites; they require little attention, they are dwarf in habit, hardy of constitution, and produce abundance of deliciously-scented flowers. All growers of these beautiful plants should obtain if possible the Mrs. Sinkins variety, a robust plant with a pure white, large flower, and excellent for bouquets. The best time for propagating pinks is when the plants are in full bloom, which occurs in June. If delayed much longer the shoots get hard, and do not root quickly. They should be taken off when about two inches long, and have the leaves from the two lowermost joints rubbed off. Then, in a shady part of the garden, prepare some light soil by digging it fine and level, and watering it until it becomes a puddle. Whilst in this state plant the cuttings, but do not water them after they are planted. To ensure success a hand-glass should be placed over them, or they may be planted in wide-mouthed pots, and a piece of glass placed over them. These early cuttings make handsomer and stronger plants than later ones, and are therefore to be preferred.

F. J. EARLS.

SLUGS AND SNAILS.—These are very troublesome in many gardens, certain plants in the herbaceous border being particularly subject to their attacks. Soot or lime, or both together, are often recommended, but to be in any way effectual several applications are necessary. The time-honoured plan of taking a lantern at night and searching for them when they are actually engaged in feeding is one of the best methods of capturing the enemy, but then it is not everyone who has the necessary enthusiasm to do this. The less energetic might try trapping them with bran, moistened with a little vinegar, placed in a heap on an old slate, or else decoy them with lettuce leaves smeared with lard. A dry, powdery surface to crawl over gives these creatures much discomfort; hence by keeping the border well and continuously hoed slugs and snails are less likely to frequent it.

BIENNIALS FOR THE BORDER.—Biennials are, of course, plants that take two years to complete their life-cycle. They are raised from seed this year, but they do not normally flower and seed until the year following. Then they die. There are not many garden biennials. Some of the best are—the Canterbury Bell, Brompton Stocks, Foxglove, Iceland Poppy, *Verbascum* (*V. olympicum* and *V. phlomoides*), and *Onopordon acaule* (a tall, handsome thistle). Some botanically biennial plants are often treated as annuals, as by raising them from seed early in the year in a greenhouse they may be induced to flower in the same year. The seeds of biennials may now be sown. They may be planted out in September next, or, if more convenient, may be kept in the seed-bed until February.

**STAKING PLANTS.**—The importance of staking plants in the herbaceous border is recognised by all good gardeners. Why should we stake? First, under good culture many plants grow fast and grow tall, until they bear such a weight of foliage and flowers that they are unable to stand up against the extra weight that heavy rain showers entail or against the extra strain of heavy winds; they flop over, and become spoiled as objects of beauty. But, apart from this, stakes are very helpful to tall, rapidly growing herbaceous plants. In a state of nature the tissues of a plant readily respond to the various strains and stresses imposed upon them. If a stem, for example, is subjected to a constant stress the tissues thicken and strengthen to correspond, so that they are able to bear the strain required of them—in other words, the plants will grow firm and sturdy with a minimum of soft, sappy tissue, which means that much of the energy and available food of the plant is spent in giving strength to the stem, so that the other energies of the plant will be correspondingly reduced. Now, staking relieves the plant of any necessity to form extra strong woody stems; being artificially supported it does not feel the strain, and therefore the stimulus being absent the plant spends its saved energies in developing leaves and flowers. Most amateurs stake very badly and inartistically. They either bunch the stems round a central stake or else they use stakes unnecessarily long. The first method is barbarous, unhealthy to the plant, and should never be practised. As to the second, it is as unnecessary as it is extravagant and ugly to use a six-foot stake to support a five-foot tall plant. A four-foot rod will support it just as well. Stake early, as this will not only give the helpful support that encourages straight vigorous growth of the stem, but the growing plant will soon effectively cover the support with its mass of foliage.



Galega Hartlandi.

### Goat's Rue (Galega).

**G**OAT'S RUE is a tall herbaceous perennial with compound leaves and lateral and terminal racemes of white or blue flowers. It is a leguminous plant. The genus (*Galega*) includes three species, having a distribution through southern Europe and western Asia. One species is sometimes cultivated as a fodder plant. The name of the genus comes from a Greek word meaning *milk*, as its herbage is supposed

to increase the flow of milk in the goat. Hence also the common English name of "Goat's Rue." The plants are very ornamental, especially when grown in masses.

We give an illustration of an interesting variation of *Galega* that originated from seed in Mr. Hartland's nursery grounds at Ard-Cairn a few years ago. Its discovery was due to the quick eye of the late Mr. F. W. Burbridge, who drew attention to the distinctive variation on the occasion of one of his visits to Ard-Cairn. It is known as *Galega Hartlandi*. One pleasing peculiarity of the plant is that when the current year's shoots appear in spring the leaves have a variegated silver colouration, which is maintained until the middle of May, when they gradually assume the normal green appearance. The flowers are bi-coloured, abundantly produced, and have the delicious scent of the wild furze.

The Goat's Rue delights in a rich, loamy soil and a sunny situation.



**ASPIDISTRA LURIDA VARIGATA** (The Parlour Palm).—This is one of the most popular plants for room decoration in cultivation. It is excellently adapted for rooms, halls, &c. Although of slow growth it increases in beauty with age, forming quite a leafy mass of beautiful dark green and striped foliage. They require a liberal amount of water in dry weather. An occasional spraying with soft soap solution is necessary if the plants are to be kept in a healthy condition.—W. H.

# Water in relation to Soils.



BEARING in mind the importance of a sufficiency of water for the complete development of crops it becomes a matter of practical interest to cultivators to know something definite about the comparative absorptive power of different types of soil. In other words, different soils have different capacities for storing water that falls upon it as rain. In dry seasons this particular property of the soil is one of the factors that materially influences the successful production of crops. The total amount of water that reaches the soil in a year is very considerable; for example, during the last month (April)  $2\frac{1}{2}$  inches of rain fell. How much water does an inch of rain represent? It represents just a little over  $4\frac{1}{2}$  gallons per square yard. What becomes of this water? Most of it is absorbed by the soil, and when the absorptive capacity of the soil is satisfied the superfluous water passes down into the depths of the underlying strata or else into the drains. In any case, such water as escapes through the region of soil traversed by the roots is lost to the crop. The importance of a soil having high water-holding power will be now apparent.

From carefully conducted experiments it has been ascertained that 100 volumes of each of the following types of soil will absorb and retain the number of volumes of water set out in the first column. The second column gives the percentage of increase in weight of the soil.

	(1)	(2)
Sand . . . . .	38	28
Loam (60 per cent. clay) . . . . .	51.4	40
Heavy clay (89 per cent. clay) . . . . .	62.9	61
Humus . . . . .	69.2	190

But while it is of importance that a soil should be able to hold a large quantity of water it must, at the same time, be able to hold a sufficient quantity of air. Sand has a very low water-holding capacity but a high air-holding capacity; while clay is the very reverse of this, its particles are too fine and too close to admit much air. Hence a mixture of these two (in other words a loam) is the best type of soil for ordinary cultivated crops. Humus absorbs and retains much moisture, and as it keeps the soil open its presence increases the air-holding capacity also. From this it will be seen that, quite apart from its manurial value, ordinary dung increases the water-holding power of light soils and increases the air-holding property of stiff clays.

# Current Topics.

By PETER BROCK, Horticultural Instructor, Co. Fermanagh.

THE winter spraying of fruit trees has become a recognised necessity in keeping the bark in a clean and healthy condition and in destroying the eggs of various injurious insect pests. Considerable interest has recently been manifested in the insecticidal effects of the two scientifically prepared proprietary winter spray fluids, V<sup>1</sup> and No. 1. As far as their fungicidal properties are concerned, they appear to be equally efficacious in cleaning the bark; but whether they have destroyed, or even reduced, the more tenacious fungus *Fusicladium*—better known as apple and pear scab—more time is required to ascertain the results. The eggs, however, which they are reputed to destroy have produced, in many cases, an injurious crop of apple sucker (*Psylla mali*), aphides and winter moth caterpillars. No blame can be attached to inefficient spraying, as the trees experimented on were as thoroughly damped as if they had been dipped. Experiments on trees infested with mussel scale show that a comparatively small proportion of eggs have been destroyed. At the time the eggs were hatching I had specimens from several districts which were sprayed under various atmospheric conditions and with different waters microscopically examined. Those sprayed with the above fluids showed an entire absence of red, mite eggs compared with those from unsprayed trees; but apple psylla and aphides were found to be numerous and hatching. Specimens from trees in an orchard which had previously been badly infested with psylla, aphides, and winter moth caterpillars, sprayed in March, 1907, with the Woburn iron sulphate-caustic soda-emulsion, were also microscopically examined this year. Although they have not been sprayed since last season they were found to be zoologically the cleanest, showing only some eggs of red mite and aphids. On a recent inspection of the latter trees and others treated this year they show at a distance by the uninjured condition of the foliage the superiority of the Woburn formula, which acts like a motor-car in comparison to other donkey-cart or wobegone applications for destroying eggs of injurious insects. The formula of the Woburn winter spray mixture referred to is as follows:—

Sulphate of iron (copperas),  $1\frac{3}{4}$  lbs; caustic soda,  $2\frac{1}{2}$  lbs.; paraffin, 5 pints; water to make up to 10 gallons.

Some growers varied the above by using a little less paraffin, but the best results have been obtained with the full amount.

"Paraffin emulsion is the substance generally used for spraying against sucking insects. It is prepared by dissolving  $\frac{1}{2}$  lb. soft soap in 1 gallon of boiling water, and adding this to 2 gallons of paraffin; the mixture must then be churned up with a force-pump so as to form a creamy emulsion of even composition. Before use, the emulsion must be diluted with 10 gallons of soft water."

The above is the formula given in the Department's leaflet No. 85, page 5, and appears to contain a printer's error. Having had some experience with paraffin emulsion, I think the last sentence is surely meant to read:—Before use, the emulsion must be diluted with 100 gallons of soft water. This gives an effective emulsion for sucking insects, as it contains nearly 2 per cent. of paraffin. Under certain atmospheric conditions and on some tender foliage emulsion at this strength will sometimes cause scorching. I have had best results, and without injury to trees or bushes, by using the above stock emulsion—the "Hubbard-Riley" formula—in the proportion of 1 gallon to from 40 to 60 gallons of rain water. If soft soap in the proportion of  $\frac{1}{2}$  lb. to every 10 gallons is added to the dilute emulsion it forms a better summer cleaning wash.



## Rock Plants.

A CORRESPONDENT asks for a few plain hints on the cultivation of rock plants, meaning thereby Alpines. In the first place, it must be remembered that all Alpines require dampness, not dryness, at the root. Because they live naturally among rocks it does not follow that they thrive in a dry soil. The moisture, however, must not be stagnant, the drainage must be perfect. They are naturally water-fed by melting snows.



The general disposition of the ground should be sloping, so as to give thorough drainage. Buried stones, with the side facing the down slope, protruding should be provided, and if placed at an angle, to have the angle sloping towards the growing plants, so that their roots may get easily under the stones, and so into the damp under-earth.

Then here and there should be little level patches of grass or miniature lawns in conformity with what actually obtains in nature. If the pocket system is followed, fill the pockets with a mixture of good loam, leaf-mould, sand and grit, decomposed granite rubble, such as may be found on the Dublin mountains, being excellent. All Alpines and other rock plants require a good depth of soil—a foot deep at least. If lime-loving subjects are included, then limestone rubble, so abundant in many parts of Ireland, should be used for their particular "pockets." Or, again, others may prefer peat or boggy soil. If such are grown this medium must of course be used. Finally, all soil should be pressed very firmly, and special care should be taken to leave no empty spaces among the stones.



LONDON PRIDE.—There is a modern tendency in gardens to forget the old-time favourites in our anxiety to make room for the later introductions of the florist. This remark is suggested by the sight of wide, handsome clumps of London Pride—green, glossy-leaved, and full of flower—growing along the border of a shady walk, and another of equal beauty—fresh-looking and widespread—its thousands of flowers quivering in the sunshine on the rockery beyond. What an accommodating plant this is! It will grow and thrive almost anywhere, but please do not cramp it or divide it up into silly little clusters, but give it room, and let it spread. Permit it to show itself off properly, and it will reward you as few plants can. It is a common wild plant in Ireland, and it is called St. Patrick's Cabbage in some districts.

## Violets.

By P. MAHON, The Gardens, Killeen Castle, Dunsany.

THESE useful plants are appreciated by all, and deservedly so, as they give a supply of bloom throughout winter and early spring, when flowers are few and far between. Although of easy cultivation, violets respond splendidly under good treatment. They delight in a rich, friable loam, but resent a stiff, clayey soil. To obtain the best return young runners should be planted annually. This pertains in particular to single varieties. Doubles give a fair percentage of bloom from two year old plants, but on such the flower stems are generally inclined to be short—a great inconvenience in their proper arrangement for bouquets. Hence, where possible, young plants of both varieties should be preferred. In April the old plants may be lifted, and the best rooted runners selected if extra early bloom is not required, say, before October. I do not advise planting right off in their permanent position, as violets require a warm, dry situation during winter and spring, and if planted under such conditions during summer would probably encourage attacks of red spider. Therefore, choose a moderately shaded border, which should be brought to a fine state of cultivation for their reception. In planting allow enough space for regular use of the hoe. During dry weather keep them supplied with water. As growth advances the ground should be kept in a loose condition to enable the plants to get a good root-hold. As the runners form on single varieties pinch to one leaf, and as fresh shoots appear pinch again. Double varieties may have their runners cut close to the plants. Towards the middle of August select a warm situation for single varieties. The soil should be deeply dug and enriched with well-rotted, farmyard manure. Some ashes from burnt garden refuse can also be added with much benefit. The ground being prepared, form into raised beds three-and-a-half feet wide. This will suffice for three lines of plants. The distance from plant to plant depends chiefly on varieties grown. Strong-growing singles should be given fifteen inches if possible. Keep runners pinched as already directed. Remove all decayed leaves. See that the ground is kept clear of weeds by the regular use of the hoe. Should the plants require a stimulant, do not use liquid manure, as this induces excessive foliage at the expense of bloom. Occasional applications of some suitable fertilizer will keep up the blooming qualities of the plants.

Double varieties require the protection of a frame, which should be placed in a warm position. To ensure drainage place some broken bricks or shingle in the bottom, over this a layer of old turfy peat or rough leaf-soil; fill the remainder to within six or eight inches of the top with compost made up of two parts fibrous loam, one leaf-soil, with a light sprinkle of sharp sand; plant ten to twelve inches apart; put the lights on, and keep close and shaded for a few days. After this they will require as much air as possible. Heavy rains can be guarded against by raising each light with a wedge or brick. Keep the soil stirred between the plants, and see that they do not suffer from drought at least until the end of September, when they will require little or no watering. Keep runners cut as directed, and remove all decayed foliage.

POTENTILLAS are especially useful to extend the period of flowering in rockeries. For mid to late summer display few plants are more suitable than *Potentilla reptans*. Its rosy carmine flowers, with black anthers carried on rosy filaments, show up radiantly in the sunshine. *P. alpenstris*, with yellow, and *P. nitida grandiflora*, with rose-pink blossoms, are both valuable for the same purpose. They all prefer a sandy soil.

## "IRISH GARDENING."

AN ILLUSTRATED MONTHLY.

OFFICES—53 UPPER SACKVILLE STREET, DUBLIN.

**Publishing Date.**—First day of each month.

**Subscription.**—3/- per annum, post free.

**Editorial.**—All Editorial Communications, copy, and photographs should be addressed to "The Editor."

**Business Communications.**—All letters regarding Subscriptions, Advertisements, and other business matters must be addressed to "The Manager."

**Wholesale Agents.**—Newsagents will please send their orders for Copies to either Messrs. Eason & Sons, Dublin and Belfast; Messrs. M. H. Gill & Son, Dublin; Messrs. Robb & Co., Belfast; or Messrs. News Bros., Cork.

**London Agent.**—Mr. G. Vickers, Angel Court, Strand, London.

**Remittances.**—Postal orders, cheques, &c., should be crossed and made payable to The Manager, "Irish Gardening."

## The Watering of Plants.

AT this season of the year it will be necessary to give close attention to the watering of pot plants, and a little talk on the conditions influencing the need of water by growing plants may be acceptable to those of our readers who are not professional gardeners. For clearness sake we will cast our remarks under a series of numbered paragraphs.

1. The first fact to recognise is, that while the soil round the roots is to be kept moist it must at the same time contain a sufficiency of water to enable the active roots to breathe. When the soil is full of water there is no room for air. Let the "loose" water drain away, and as it does so air enters and fills up the vacant spaces. Then the roots can get both water to drink and air to breathe. Watering can never be done properly if the drainage is in any way defective.

2. Newly potted plants should be cautiously watered. The activity of the disturbed roots will be lessened, and, therefore, for a time less water than normal will be taken up; hence overwatering, followed by sourness of soil, may easily arise. This in turn would give rise to an unhealthy condition of root and a check to new root development. Examine the soil, therefore, most carefully before watering, as loose, dry particles on the surface may mislead as to the actual state of the underlying soil.

3. Consider the present stage of growth of the plant. If in the full flush of growth it will take up and give off more water than if it is just starting growth or gradually passing into its resting period. Plants actually resting should not be watered at all.

4. Take note of the "weather" conditions. If the air is moist or cold the foliage will lose less water than if the air is dry or warm. Furthermore, the probable weather also should guide us as to the extent of watering. If the day is likely to be dull or moist the plants may not demand watering until the following day.

It will also be readily understood that plants exposed to draughts will lose an extra amount of water, and hence will require more frequent watering.

5. Newly pruned plants will, of course, require a shorter supply, as there are fewer leaves to give off water. The amount of water absorbed in a given time depends upon the amount lost by the leaves in the same time.

6. Plants just commencing growth often require very little water. Bulbous plants, for example, require some time to develop a strong root and shoot system, and until these are developed very little water will be required. In such cases plunging the pots in ashes or coconut fibre will obviate the necessity for watering at all until considerable growth has been made.

7. A golden rule is, "when watering, always do it thoroughly." The giving of a "little water every day" is certainly a very bad plan, while the standing of pots of growing plants in saucers of water is absolutely wrong.

8. With a little practice testing the need of water by tapping the pots and noticing the sound, or judging from the weight of the pot in the hand, will be found helpful in deciding whether or no a renewal of water is required.

9. In all outdoor watering, drench thoroughly, and then cover with a mulch of loose material, say, half-rotten manure or even fine, dry earth. This will check or even entirely prevent evaporation from the surface of the soil, and therefore save much time and trouble.

An intelligent study and practice of the above principles will go a long way towards securing success in growing plants in pots and boxes throughout the coming summer months.



MR. GEORGE DOOLAN, writing from Dungarvan, says: "The severe frost of the 23rd and 24th of April did a lot of injury to the gooseberry crop in this district, destroying in some instances more than two-thirds of the crop. Black currants also suffered, but to a much lesser extent. Pears and plums, being early to bloom, had many of the blossoms destroyed. Strawberries, whose blooms were sheltered by their leathery foliage, also suffered much damage, as the centres of the largest flowers were, in numerous cases, quite black and dead. The apple, fortunately, escaped; the continual cold weather during April evidently kept the fruit buds in check. A correspondent in England informs me that gooseberries have suffered even worse over there. During my experience of twenty years at fruit growing I have not seen such injury done to the gooseberry crop."



WATER IN RELATION TO CROPS.—Water is a very important factor in plant life. It is quite possible that many gardeners scarcely appreciate the amount of water that passes from the soil into the plant and from the plant into the air in the form of invisible vapour. The loss takes place from the leaves, as was first pointed out by Hales in 1724, who found that a sun-

flower plant 3 feet high lost on an average one pound four ounces of water during twelve hours of daylight. It has also been ascertained that a moderate sized deciduous tree may lose in 12 hours as much as 900 pounds of water. A crop of oats weighing one ton at harvest has, during its full growing season, absorbed from the soil and passed into the air in the form of vapour the prodigious amount of 200 to 300 tons of water. This will give some idea of the immense importance of water in the cultivation of crops.

MISS CHARLOTTE G. O'BRIEN, of Ardanoir, Foynes, sends the following interesting note—"Seeing letters about *Pyrus (Cydonia) Japonica*, I think it may interest readers to hear of my success with seed. I noticed last autumn the fruit very large and round as my brother's, near Limerick. I opened a fruit, and it was "chockful" of seeds, well filled and healthy looking, so I took it home and sowed it in a cold greenhouse in December. I have now planted out in permanent rearing bed no less than 77 (seventy-seven) 3 in. or 4 in. trees, the product of that one fruit; they look as strong as so many Crabs. The parent was the old-fashioned dark rose-red, the handsomest kind I know. It will be interesting to see if the young ones show variety of colour."

On the 20th day of May we received from Mr. Wm. Baylor Hartland a box containing a fine collection of tulip flowers carefully packed and named. The box also contained the following note:—"This being my seventy-third birthday I send you a few flowers as a whiff of freshness from Ard-Cairn grounds." Many happy returns, we are sure, is the united wish of ourselves and readers.

FROM experiments conducted by the Agricultural Department of the University of Leeds on the prevention of scab in potatoes, it appears that the application of saw-dust to the soil tends to check the development of the disease to a very considerable extent.

ANYONE specially interested in small holdings should read an article on Small Holdings in Hampshire, by Mr. J. C. Newsham, of the Farm-School, Basing, in the May number of the Journal of the Board of Agriculture (England.)

THE annual Agricultural and Horticultural Show will be held at Thurles on June 29th. Prizes of money, seeds, fruit-trees, &c., are offered for competition in the Horticultural Section.

THE Tanley Flower Show will be held at Wyckham on Wednesday, the 15th of July. Dr. Kingsmill Moore presents a Silver Flower Bowl to the most successful exhibitor at the show, while a Silver Challenge Cup is offered for competition in the open Sweet Pea Classes. Mr. F. W. Moore has consented to act as Judge.

A CORRESPONDENT gives what he says is a good remedy against slugs attacking fruit trees. He has found that by putting roughly broken bricks round the roots of the trees the slugs were kept off.

A NEW, and apparently serious, disease of tomatoes that has recently appeared in England is described in the May issue of the Journal of the (English) Board of Agriculture. The leaves of attacked plants show numbers of small, blackish green spots that quickly enlarge and soon coalesce; the leaf then drops and dies. Other parts of the plant, including the fruit, is liable to be affected. The disease seems to have been introduced from South America presumably in imported fruit. It is caused by a fungus of the genus *Septoria*, and is very rapid in its action, taking about seven days from the first indications until the plant is killed.

MR. J. MAGUIRE, writing on the subject of Bees, says—"Should a long spell of cold, wet weather occur, such as we had last year, great distress may exist in the hive for both honey and pollen. The latter can be substituted by putting a liberal supply of flour (pea flour is the best) into the cells near the brood. This will keep the stock in condition, and prevent the brood dying of starvation, as happened in many places last year. When larvae are being cast out of the entrance, that is a pretty sure sign that feeding is urgently required."

TOWN and suburban gardeners are frequently annoyed by the activities of the common or domestic cat, but according to Mr. W. G. MacIntosh of Fairview (suburban), Dublin, "Alphol" is so particularly distasteful to them, that by its use seed beds may be kept entirely free from their depredations.

EXPERIMENTS on the influence of etherisation upon forced rhubarb have been carried out at Cornell University Research Station with interesting results. It was found that etherisation not only induces earlier growth by at least five days, but that it also increases the quantity of produce by about 33 per cent.

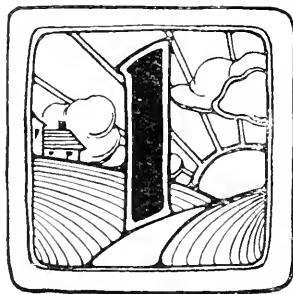
HYDRANGEAS IN TUBS.—These make an excellent decoration for lawns. Positions which are partially shaded from the mid-day sun suit the plants best. Fill the tubs with rich, warm, well-manured loam. Get bushy species about 3 or 4 years old. Now is a good time for re-planting. Hydrangeas require a good deal of water. In late autumn or winter a good mulching of well-rotted manure will be a great benefit to the plants and enable them to produce masses of fine foliage the following season. During the winter some pruning is advisable to produce vigorous spring shoots.

MESSRS. Wm. Watson & Sons, of the Clontarf Nurseries, sends us a sasonable catalogue of bedding and other plants in demand at this time of the year.

CARE IN WATERING PLANTS.—During the summer months great care is necessary in the matter of watering. We have often called attention in these columns to the importance of establishing and keeping up free aërial communication between the soil and the overlying atmosphere. For root-activity air is just as necessary as water, and we must take care that in supplying the one we do not tend to exclude the other. Constant watering tends to cake the soil, and this in turn tends to bring about stagnation of the air in the pores of the soil. We must, therefore, prevent the formation of a caked soil surface. How can we do this? There are two ways. One is to mulch the surface with litter or strawy manure, and the other is to use the hoe persistently so as to keep, at all times, the surface of the soil loose and powdery. Both operations have the same double object in view—namely, keeping the surface pores open and of preventing the surface evaporation of water. If you are a beginner in gardening try a little experiment. Treat one patch of growing plants in either of these ways and leave another and similar patch untreated. In a few weeks time of fine weather examine the soil under the mulch of litter or fine earth and that under the surface of the untreated soil. The one will be much damper than the other. You have not added water to the mulched area, but you have prevented the excessive escape of vapour of water from the surface. A final word of caution about watering with liquid manure made from dung. The liquid should be free from suspended particles, else the pores of the soil will get clogged with the fine particles carried down by the water. The solid manure should be enclosed in a bag of coarse texture and suspended in the liquid manure barrel. This will secure a clearer liquid and one less likely to produce clogging of the surface pores.

## Roses.

By O'DONEL BROWNE, M.D.



FIND I took you to the show too quickly in last month's article, inasmuch as I did not tell you how, and when, and what to cut. Let us suppose your box and tubes are all ready and to-morrow is the show day. Now, much will depend as to where the show is; it may be at home or far away. Another very important point is the time of year,

for blooms to be shown in July and August are very different to deal with. Let us take it that we are to show at a place to-morrow that is quite local; by this I mean within an easy distance, so as to arrive there in time to allow staging, &c. Most people advise you to cut in the morning early, but this is a risky procedure. Roses grow very rapidly early in the day, and great care is necessary to mind what you cut. Another point about this early cutting is that there may be dew or moisture on the blooms, and if cut at this stage, when you arrive at the show you will notice some blooms spotted in places. If you can wait until this dew has evaporated, then cut; but when all is said and done you might more safely cut your blooms the night previous, and wire them, and get them safely in their tubes, and give your boxes plenty of air all night. More than once I have seen rain coming, and have cut dry blooms, and next day had the pleasure (?) of seeing opponents coming with spotty blooms. To wire a bloom is an easy matter with the usual wires sold with Foster's tubes. Cut your bloom from the tree with at least six inches of wood. Carry the bloom quickly to the box, and proceed to wire it thus—Get the base of the bloom into loop at head of the wire. With the fine wire take a couple of turns round the stalk, just tight enough to hold the rose firmly. Then pass down to lower wire, and do the same with it round the stalk or shoot. Do not bother with the loop half way down the wire. Cut your stalk or shoot when wiring is complete about one inch longer than the wire, and place rose and wire into cup of tube. Label the rose, and do the same with all. There is a projecting ring on Foster's cup to carry the label. All roses for shows are "tied up" a day or so to help the bloom to lengthen, and to prevent it from expanding. I very much doubt if it can hinder the latter. To tie a bloom take about six inches of cotton wool, such as Berlin white wool, and make a loop by passing one end twice over the other. Put the loop over centre of bloom, leaving the wing petals loose, and pull the two ends moderately tight, just enough to prevent the loop slipping. This loop is not removed until show time, when, by lifting one end up, the whole tie slips off the centre of the rose. Tie all your blooms fairly early; but do not tie them when wet.

Now, we will suppose you have to show a stand of twelve blooms, and that you have cut, wired and tied all ready. You should try and take a spare for all, as there is no knowing what may befall your picked lot. These spares should be younger blooms, and should be treated just the same as your best blooms are. As a twelve box is the nicest and easiest to arrange, we will suppose you are ready to arrange the blooms in the probable place they are to occupy at the show. Let us suppose you have a level, even lot of blooms, all the same size, or nearly so, then try and arrange them so that a dark and light bloom are next one another, so as to show each other up. Beginning with a dark rose,

you place a light one next it and a light bloom below. Let me give an example, as I can make it clearer :—

Hugh Dickson	Mildred Grant	Alfred Colomb	Bessie Brown
Frau K. Druschki	Ulrich Brunner	C. Testout	J. B. Clark
Dean Hole	Mrs D. McKee	Prince Arthur	Mrs. J. Laing

In this you will see that Ulrich Brunner has four light coloured roses round him, whereas Mildred Grant has three dark ones. But very often there is a graduation of sizes. Then you begin with your biggest blooms at the back and the smallest in the front, keeping the best quality blooms for the end of the lines. Mr. Pemberton advises the addition of a yellow bloom, even if it is of questionable value, to enhance the dark reds; but beware of this until you have some experience. It is all right for Mr. Pemberton to try this, because he knows *when* to take liberties, but you had better not. Add no foliage to your box save what appertains to the stalk; you can be disqualified for this very common habit which some amateurs have. What more ridiculous sight is there than a Tea rose with coarse H. P. foliage scattered round it? At all times be careful about duplicates where varieties are to be distinct. Wrong naming by an accident does not disqualify, but a duplicate will.



## Tobacco.

DURING the past few years great improvements have been made in the size and colour of the flowers of the tobacco plants, so that now the colours embrace every shade between white and dark red. The hybrids of *Nicotiana glauca*, introduced a few years ago, are without doubt the most beautiful and useful, coming into flower in July, and flowering continuously until cut down by frost. Their only fault—if fault it may be called—is that the flowers will not open in the sunlight; but in the evening, after sunset, the flowers expand and give forth their delightful perfume to the cool evening air.

The tobacco is generally treated as a half-hardy annual, although the thick, fleshy roots will in some cases live throughout the winter. The seed should be sown in February or March in light, rich mould, in gentle heat, and when fit to handle should either be potted off singly into small pots or be pricked out in boxes three or four inches apart, and grown on in heat for a time, gradually hardening them off, so that they may be fit to plant out in their permanent places towards the end of May. Seed may be sown in a cold frame in April or in a very sheltered spot, where they may be easily protected from late frosts or cold winds, and pricked out as before when fit to handle. Planting out should be done in dark, showery weather, or the plants should be shaded for a few days, as the leaves are easily injured by the sun when young. Slugs and snails devour them greedily, so that they should be dusted with lime and soot when planted. Plants suitable for bedding cut may be obtained from nurserymen.

P. J. O'CARROLL.



PHLOX DRUMMONDI is a very showy, half-hardy annual, which may be now safely sown in the open border. It is a native of the United States, and many varieties of it are in cultivation. The flowers show a wide range of colour—white, scarlet, rose, pink, scarlet salmon, crimson, purple, &c. Slugs are very partial to phlox, and often clear off the young plants. Dusting the beds with soot is a good plan, and will not injure the plants if carefully applied. To get the fullest advantage of phloxes they should be planted in patches or beds, and pegged down if needed, so that when they flower they present "a sheet of bloom." They are old and worthy annuals. Try them if you have not done so.

G. FRASER.



## The Flower Garden.

By J. G. TONER, Horticultural Instructor, Co. Monaghan

ONE of the most important operations requiring attention during this month is the placing of chrysanthemums in their flowering pots, and let it be understood that these remarks are not intended for those who have reduced the cultivation of "mums" to a fine art. Rather are they meant to help those who grow them for greenhouse and general decorative purposes. In this, as it may be termed, the ordinary culture of the chrysanthemum, all that is necessary is to use a substantial compost, sound and sweet, such as three-parts loam, one of old manure or leaf-mould, and a small proportion of lime rubbish, and sand; it should not be very fine, and, in the course of potting on, the compost should be rammed firmly round the ball of soil as turned out from the smaller pots, and only just covering its surface. As much space as possible should be left below the rim of the final pots, so that as the plants advance in growth they may be encouraged by giving them rich top-dressings. An amount of labour in watering will be saved if the pots are plunged—that is, sunk—one-half to four-fifths of their depth in a bed of ashes or turf-mould. Care should be taken, however, to place boards or slates underneath them so as to prevent the ingress of worms, which play havoc with the drainage scheme of the careful grower. Prick off seedlings of all the Primula tribe, using a soil in which sand and leaf-mould are well to the fore; water very carefully, and shade for a while.

Cineraria seedlings will do better if placed in three-inch pots; keep cool, and make some arrangements that will prevent the sun's rays shining directly on them. The same remarks apply to calceolarias, but they should be pricked off in pans. Tuberous begonias for inside work should now be well established in their flowering pots; if there is reason to think that they have quite filled them with roots, feed, and feed regularly and liberally.

It is not too late yet to increase stock of winter-flowering carnations, of which there are now so many easily grown and lovely kinds. If any reader is so unfortunate as to be without them, for goodness sake let a dozen or so of good kinds be purchased immediately and grown on; if necessary, the names of "guid 'uns," as they say in the north, will be given in these columns. As space is somewhat limited, readers will please refer to previous notes as to treatment of various indoor subjects. Get dahlias at once into their summer quarters, taking the precautions for their protection given last month. Finish up as soon as possible all details of bedding out. Mulch and stake sweet peas. Prick off when ready seedlings of biennials and perennials; also take particular care

of wallflowers. If a really good show is desired in spring, the following plan will prove successful—when the young plants are two or three inches high they may be either lifted or pulled,

bunch them evenly in twenties or fifties, cut the taproots to the length of an inch or so; clean off, then dibble out six inches apart if possible; water if the ground be dry. In the course of a month or so go over them all carefully and stop them—

that is, pinch out the leading growth, and then—? Well, just try it, as the patent medicine pushers say.

As border plants advance in growth see that proper stakes are provided, and further see that the plants are secured to them. How often do we see the stakes there in their proper place, but the growths of the plants, oh! where are they? Sometimes straggling about or lying on the ground. What a show the old-fashioned tulips made a little while ago, now "past is all their fame"; but not so their beauty or brilliance of colouring, and if the craze for them has departed, they are still more than worth the little attention they require.

Thin annuals with an unsparring hand, and loosen the soil about them. It is not necessary to mention the keeping down of weeds; so far as the flower garden is concerned there should never be any visible.

## The Fruit Garden.

By GEORGE DOOLAN, Instructor in Fruit Culture, Department of Agriculture.

**THINNING FRUIT.**—Where the best varieties of apples are grown and the choicest fruit desired, thinning of the fruit should be carried out. Indeed almost every kind of fruit is benefited by a judicious thinning. Grapes and peaches are always thinned, two-thirds and more of the fruit being removed, and the result is that larger fruit of finer quality is produced. A certain amount of judgment is needed to determine the number of fruit to leave on an apple or pear tree. It is obvious, however, that weak-growing trees cannot develop so much fruit as their stronger-growing neighbours, therefore they should have the crop severely thinned; whilst strong, sturdy trees may be allowed to carry a much larger crop. Young trees, too, need more severe thinning than old-established varieties, and newly planted trees should not be allowed to produce any fruit the first year. A heavy crop is a severe tax on any tree. In thinning remove all small and deformed fruit. Old trees may be allowed two or three fruits to each truss, but in case of young trees one fruit to each truss is sufficient. If there is a difficulty in severing the fruit, use scissors. The following varieties of apples usually carry good crops, and would derive great benefit by having the fruit thinned—viz., Early Victoria, Grenadier, Lane's Prince Albert, Allington Pippin, and Stirling Castle. Gooseberries and red currants making strong growths should have some of the centre shoots removed; this will allow air and light to enter and ripen the wood for the following year.

**GENERAL REMARKS.**—Remove suckers growing from the roots of all fruit trees, raspberries and currants excepted. Thin out suckers of raspberries to about six canes, leaving the strongest. If the removed suckers be planted without delay, they will make good canes at the end of the season; plant in a nursery bed. Keep a sharp watch for insect pests on fruit trees, especially greenfly and sawfly caterpillar, and if any indication of attack be noticed, apply remedies as directed in the previous issue of IRISH GARDENING. Keep the ground clean and aerated by the frequent use of the Dutch hoe. Where

liquid manure is available, apply it diluted at intervals of three or four days to black currants, raspberries or apples that are carrying large crops of fruit. It will be of great assistance to such trees, and the fruit will be larger and finer in quality. Liquid manure can be easily made from sheep manure gathered in a bag and placed in a barrel or tank; fill with water, but do not use the liquid for 24 hours. Soot-water, another excellent liquid manure, may be made similarly.



## The Vegetable Garden.

By WILLIAM TYNDALL, Instructor in Horticulture, Co. Kildare.

**TRANSPLANTING**—The various winter crops will now claim much attention.

With the past heavy rains and present warm weather growth has been rapid, and where seeds were sown thickly the plants will soon get weak unless the seedlings are pricked out into nursery lines. Treated in this way the plants will be found to grow better, and be able to stand more severe weather during the coming winter. Especially too is this course necessary on account of the prospective planting ground being already occupied by a growing crop, and therefore the second planting may be delayed. In transplanting it is not necessary to have very rich ground or to give the plants much space, but when lifting to finally plant out do so with a fork, and so preserve as many roots as possible. Attend to directions given last month, and thin all crops as they become fit. Support with stakes all crops, as peas, that require them. Destroy all insect pests and grubs, which are this season far more mischievous than any year I can remember, many crops being almost ruined.

**CAULIFLOWER.**—To keep up a succession of cauliflowers it will be necessary to have several batches of plants, and plant in different aspects if there are to be no blanks in the supply between the early lot this month and the crop of Autumn Giant, as too often the crops come in altogether. I find Dwarf Erfurt a most useful variety, being of dwarf growth, the heads being of good flavour and colour, and well protected with leaves. Make sowings of seed in March, April and May, planting out in deeply dug and well manured ground in lines 2 feet apart and 1½ feet between the plants. Walcheren is another good old variety, very hardy, and does well in light soils. Autumn cauliflowers will be ready during the month for planting, and as Veitch's Autumn Giant is generally grown it will be necessary to plant on rich ground, and give plenty of room between the lines, 2½ feet between the plants being little enough. Select an open position, as if shaded or planted thickly the heads often come loose. If the weather is hot and dry give a good watering at least once a week, and mulch with rotten manure, then good heads should be produced.

**BROCCOLI.**—To follow cauliflower plant out some self-protecting broccoli; select ground well dug and manured. This broccoli very much resembles cauliflower, but needs much richer soil than the late and spring broccoli, which, if planted on loose, rich ground would grow too strongly and easily succumb to frost, while Self-protecting is generally over before we get severe weather.

**LATE BROCCOLI.**—This sown early in May has come up very quickly, and will need transplanting to keep the plants sturdy, if, as is often the case, this crop follows strawberries or potatoes, which are likely to be later this year than usual on account of the cold and wet. Model is one of the best. Mid-season varieties, of which Leamington is a good example, should at the end of this month be planted in their permanent quarters to get a good sturdy growth. Plant on firm ground, and less losses will result from severe frost. Cattell's Eclipse and Penzance are other good mid-season varieties, very hardy and with plenty of protecting leaves.

**SAVOY AND KALE.**—These during the month should be fit for planting, and are most useful for a winter and spring supply. If two sowings of seed has been made the earliest will give a supply in winter and latest sowing will give cutting. In March and April, often a time of scarcity, these should receive much attention.

**SPINACH.** Probably the time of year most difficult to have good spinach is during July, August and September. Seed should now be sown on a cool border, the ground being well manured, and, if the weather is dry, cover the beds or drills with mats, which keep the soil moist; remove the mats before the plants appear. Victoria is a good variety, with large succulent leaves.

**CELERY.**—There should now be no time lost in getting in the main crop of celery. In lifting the plants the side shoots that often start should be broken off, and, if dry, warm weather follows planting, give good waterings, and for a couple of weeks, when the days are dry and hot, a syringing in the evenings will do much to start the plants and get them off without a check, which I believe often causes bolting.

**BET-ROOT.**—This crop should be thinned at once, as the warm weather of past couple of weeks has caused quick growth. Allow about nine inches between the plants, and if any rows have large gaps they can be transplanted, lifting carefully to preserve the taproot, and open deep holes to prevent the roots being twisted. I am fond of the globe-shaped beets, as these sown on warm borders early will soon be fit for use, and can still be sown if any part of the crop sown last month has failed.

**ONIONS.**—So far I have seen no trace of the onion maggot, but I advise early thinning and giving the crop an occasional dressing with a good fertilizer. Should the plants become affected burn all such plants and syringe the remainder with soluble petroleum, about two ounces to the gallon of tepid water, treading the soil close to the plants.

During the present month make a couple of sowings of turnips, spinach, lettuce, radish, endive, French beans and peas, for the latter selecting an early kind not given to mildew.



## The Potato Onion.

**THE** uses of the onion are universally known, and few plants have such a wide range of cultivation, for it is grown from the tropics to the coldest verge of the temperate zone, yet the cultivation of the potato onion in recent years has been greatly reduced.

Every cottager or farmer, no matter how small his holding may be, should endeavour to grow this important and nutritious vegetable, the product of which should be found on his table in some form or other every day of the year, and especially its use will be appreciated at a time of the year when seedling onions are scarce, as the potato onion comes in fit for use when the seedling onion is out of date—that is, between the old and new supplies.

The possible range for onion-growing in this country is very great; perhaps two-thirds of our soil is more or

less suited for its growth. There are but few cases where the land holder is excusable if he allows its importation to go on. No vegetable known can take the place of the onion as a food product; therefore it ought to be more generally cultivated.

The cultivation of the potato onion is simple, and within the reach of every person who is the owner of a plot of ground, as it will grow on almost any soil, provided that the situation is open.

Ground intended for onions should be well trenched and manured during the late autumn or early winter, and should be left in rough ridges, as the soil in this way will be made permeable by the atmospheric agencies.

Where a crop of celery has been grown, trenching is not needed, the deep digging and manuring requisite for celery culture being sufficient to intermix and change the position of nearly every particle of soil.

The best time for planting the bulbs is in January (weather permitting). The ground should then be forked over, breaking it very fine, and should be made firm either by treading or rolling, as it is essential in onion culture to have the soil firm. Having completed this operation it is wise to have the surface soil levelled off with a rake, and any rough material or stones removed.

The bulbs are planted in lines 12 inches apart, with 8 inches between each plant in the lines; they are inserted two-thirds their depth in the soil, which should be made firm around each bulb. If done in this way the work will turn out satisfactory. As the work proceeds the surface soil between the rows should get a harrowing with the fork, but so as not to disturb the bulbs; by this means the surface soil is made loose, which will prevent it clogging or crusting in aftertime, should dry weather prevail.

The after cultivation consists of an occasional hoeing and weeding. By this process we guard against loss—loss of moisture, caused by evaporation which takes place in soils that are seen to split on the surface, and loss of food material which the weeds, if allowed to grow, take from the soil.

About the middle of April the earth should be drawn away from each bulb, down to its base, so as to give them room for development.

Each bulb will produce a number of offsets, all of which will in time form and mature into perfect bulbs.

The crop will come in fit for use from June to the end of July. Any remaining in the ground should be taken up, dried and stored, to furnish bulbs for planting the following season.

JEREMIAH MALONER.



THE ferns are general favourites with the lovers of nature and of the horticulturist in consequence of the extreme beauty and gracefulness of their forms; with the botanical student, from their peculiar and varied organisation especially in what concerns their fructification. In point of its usefulness to mankind, as concerns their *products and properties*, they do not hold a very high rank in the vegetable world. It is true that in many parts of the globe, where the arts of civilized life are unknown, many kinds form an article of food, nowhere perhaps more extensively than in New Zealand; though there, thanks to the improved condition of the people, it is rather a habit of by-gone days. "Fern root," says Dr. Arthur S. Thompson in his interesting "Story of New Zealand: Past and Present, Savage and Civilized," "was one of the principal articles of food; it was the bread-fruit of the country. All over the North Island fern abounds, but the productive edible variety is the *Pteris esculenta*, Forst. This food is celebrated in song, and the young women, in laying before travellers baskets of cooked fern-root, chant: 'What shall be our food? Shall shell-fish and fern-root? That is the root of the earth; that is the food to satisfy a man; the tongues grow by reason of the licking, as if it were the tongue of a dog.'"—Sir Wm. Jackson Hooker.

## Propagating Carnations.

DURING the present month and the next, carnations may be layered. The process is in itself extremely interesting, and lovers of these charming plants will take keen delight in watching the results of their work. The method is simple. Select a shoot and remove a few of the leaves from the lower part of the stem; with a sharp knife make a longitudinal slit through one of the nodes or joints, letting the knife pass up into the internode, so as to form a tongue in the partially severed shoot; let the cut through the node be so made that the tongue will carry two half-leaf bases. Have a quantity of soil, previously prepared, compounded of sifted earth, leaf-mould, and sand; make a heap of this in the soil under the plant, pull down the severed shoot and peg it into the prepared soil, taking care that the wounded node is covered with the fine earth. It should be sprinkled occasionally with water. When well rooted the shoots may be detached and planted either in a frame or on a prepared spot in the border.

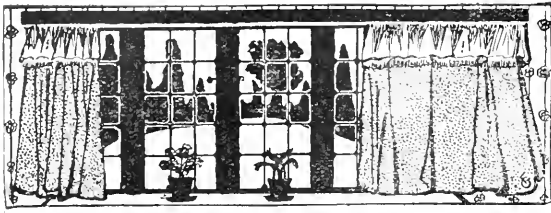


A Layered Carnation.

A, tongue made by cutting into the stem. B, root system developed from wound. C, where layered shoot is severed from parent plant.

A few words on the principles underlying the practice of layering may be added. To intelligently understand it we must know a few simple facts about the physiology of sap circulation in the plant. The water taken up from the soil is carried to the leaves along the woody tissue of the plant, and the younger the tissue the more active it is in this respect. The food required by growing roots and shoots (sugars, starch, albumen, &c.) is made in the green leaf, and from thence it is distributed throughout the plant, principally along the soft tissue of the inner rind. By bending the shoots in layering, these water- and sap-conducting tubes are either stretched and narrowed or kinked so that the natural rate of flow may be considerably interrupted. If, in addition (as is done in layering carnations), half or more of the tissues are actually cut through, the circulation is very materially modified. The partially severed end of the shoot gets a short supply of water, while the passage of food on its way down the shoot gets blocked where the connection is cut, and, consequently, accumulates there, forming readily available stores. The wounded stem being in contact with moist, warm earth, it is induced to send out roots to supply the sorely needed water, and, as there is abundance of food present, the work of root-making is carried on with rapidity and ease. It is important to be quite sure that when you make the cut in the stem the wound is kept widely open, else an attempt will be made to rejoin the tissues as in a graft.





## The Reader.

**A PRACTICAL GUIDE TO SCHOOL, COTTAGE AND ALLOTMENT GARDENING.** By J. Weathers. London: Longmans, Green & Co.—This is a very useful and practical hand-book of gardening, and should be of great assistance to everyone who has anything to do with small gardens, as it deals with all the work of such a garden, from the selection of the site to the value of the produce which may be grown, as would be expected from the name of the author. The book is thoroughly practical, and the chapters on Cottage Gardening, the Fruit Garden, and the Vegetable Garden contain much information not obtainable in other books of a similar character. In the chapter on School Gardening we disagree with the author when he says that only those lads who have a taste for gardening should be chosen for school garden work. Surely, the great argument for school gardens is that they create a taste for gardening among those boys who would otherwise have no opportunity of knowing anything of gardening work, and a boy of school-going age is hardly likely to have his tastes so fixed that he is uninfluenced by his teacher. Gardening taught in conjunction with nature-study can hardly fail to be of value to every lad whether he starts with that uncertain quality "a taste for gardening" or whether it is by reason of the interest of the work a taste for it is afterwards engendered. However, this in no way detracts from the value of the practical information given in this chapter, and a teacher with only a slight knowledge of gardening would find in this book just the information he would be likely to need in starting a school garden. The calendars of work and the tables, particularly that of trees and shrubs, should be especially valuable.

**VEGETABLES FOR HOME AND EXHIBITION.** By Edwin Beckett. London: Simpkin, Marshall, Hamilton, Kent & Co., Ltd. Price, 5s.—The lengthy sub-title of this attractively "got up" handbook sufficiently describes its contents. It includes chapters on soil preparation, crop rotation, tools, preparing and exhibiting vegetables, herbs and saladings, diseases and insect enemies of kitchen garden crops, a monthly calendar of kitchen garden work, and numerous illustrations of vegetables, vegetable exhibits, growing crops, &c. The author is well known as a skilful cultivator and a successful exhibitor, and we are quite sure that all gardeners who buy this book will thoroughly enjoy a perusal of its well-illustrated and handsome pages.

**MANURES FOR FRUIT AND OTHER TREES.** By Dr. A. B. Griffiths. London: Robert Sutton. Price, 7s. 6d.—In a brief historical introduction the author traces the development of the art of the cultivation of plants from the culture of cereals by the Chinese and Japanese 3,000 years before the Christian era up till the most recent researches by modern chemists and bacteriologists. This is followed by two chapters—one on the physiology of plants and the other on the chemistry of soils, while the bulk of the remaining pages is devoted to tables of the chemical analyses of all the principal cultivated fruit and other trees, to which a general chapter on manures is added. The book should prove useful as a work of reference to students, but gardeners, we are afraid, would find it rather tedious and perplexing.

**DAHLIAS AND THEIR CULTIVATION**—By J. B. WROE. London: Collingridge. 1s.—This little work will interest dahlia lovers. The directions for culture are clearly set forth and helpful illustrations are freely given. A good deal of space is devoted to culture for exhibition. The author strongly recommends the use of cuttings rather than tubers for ordinary garden work. He advises the tubers to be placed in heat early in the spring, rear cuttings from them, and then discard the old roots.

**PANSIES AND VIOLETS.** By D. B. CRANE. London: Collingridge. 1s.—A little work dealing with the cultivation of all kinds of violas. It is well arranged, simply written, and suitably illustrated. A special section is devoted to culture for exhibition. A descriptive list of cultural varieties is added. Any reader taking up the cultivation of these delightful flowers will do well to buy a copy of this little handbook.

**NATURE TEACHING**, based upon the general principles of Agriculture—By FRANCIS WATTS and WM. G. FREEMAN, 3s. 6d. London: John Murray.—This excellent little work is confined to the study of plants, with special reference to their physiology and culture. We commend it to the attention of teachers as a suitable text-book for elementary students.

**THE Country Home** is the name of an attractively produced monthly issued at sixpence by Messrs. Constable & Co. It deals with all subjects likely to interest dwellers in the country from the furnishing of a cottage to gardening and natural history. It is pleasantly written and beautifully illustrated. The cover in particular is strikingly effective in colour and design.



## Daphnes.

**THE Daphnes** are delightful spring-flowering shrubs, the Mezereon, a shade-loving species, being one of the very earliest flowering shrubs in the garden. It is a deciduous plant, and its dense clusters of purple flowers appear before the leaves. The Spurge Laurel is another species (*D. laureola*). It is evergreen and also shade-loving. Its flowers are of a yellowish green colour; they too arise in clusters, and are very fragrant, especially at night. These two species are found wild in *certain parts* of the south and west of England. The berries of both species are poisonous, those of Spurge Laurel being especially so. There are about fifty species of Daphnes distributed over Europe, North Africa, and temperate Asia, of which about fifteen are to be found in cultivation.

Mr. G. B. Mallett, in an article on Daphnes in the *Gardeners' Chronicle*, refers to *D. Creorum* as the most attractive of all species of Daphne, and says that in the moister climate of the west of Ireland it forms in May lovely mounds of pink that everyone must admire. It is a European species of trailing habit, growing to about one foot in height, with smooth, lance-shaped leaves half an inch long, each terminating in a little point. The flowers are deliciously fragrant, especially after rain. It is essentially a rock plant, but may be grown in ordinary borders. Mr. Mallett says—"I have seen many instances where the use of peat has proved detrimental to this plant. It undoubtedly appreciates lime in limited quantities, and I can recommend mellow loam and leaf-mould in equal parts as the best soil for it, weighting the whole with a few pieces of soft mountain limestone. Thus treated and given shade for a year or two it will thrive.

*D. oroda*, introduced from China and Japan, is an evergreen attaining a height of four feet. Its flowers are sweet-scented. It is rather tender, but Mr. Mallett believes it can be successfully grown in Ireland.

*D. indica* is a greenhouse plant bearing deliciously scented flowers in early spring. Daphnes can be readily propagated by layers.



## Bee-keeping.

By T. MAGUIRE, The Orchard, Enniskillen.

**S**WARMING and supering will be the matters most requiring attention this month. By the time these lines are in print the hawthorn should be in bloom, and if the weather be sufficiently hot at the time a very considerable amount of honey may be gathered from it. To this end, stocks should be at full strength by the first of the month, and supers in readiness, if not already put on. In some districts, supers were required this season as early as 15th May. Where holly abounds the flow in May is not to be despised.

Before putting in crates of sections the hives should be gone over, any frames full of honey at the back should be uncapped and placed in the centre, the tops of the frames should be scraped free of propolis, and the carriers of the crate coated with vaseline or petroleum jelly to make manipulation easier.

Those who prefer honey to increase of stocks should use every effort to prevent swarming, by giving room in advance of requirements, giving ventilation in hot weather and cutting out green cells when found. If a swarm issue it should be returned to the same stock, cutting out all the green cells, unless a nucleus be required. Sometimes an enormous stock will persist in swarming over and over again, no matter what one can do. The best way to deal with such a stock is to take away the brood frames and form nuclei of them, or distribute them among weaker stocks; hive the swarm on the same stand again, giving only starters of foundation and confining the brood nest to six frames until the combs are built out. The supers should be replaced on top, putting a queen exclude over the brood nest, lest the queen, being restricted for room, may invade the sections. By this method the swarming will be cured and the greatest possible quantity of honey stored in the sections, as the queen will occupy the lower frame as fast as they are built, and in such circumstances all worker cells are generally built. This is, perhaps, the only case in which foundation can be profitably dispensed with.

When a swarm issues the best way to cause it to settle is to syringe it with water. After it clusters it should be gently syringed before removal to make sure it will not rise again. If left for any time in the place where it settled it should be covered with a damped white cloth.

If the queen be clipped she will generally be found hopping about the front of the hive. She should be caged and left on the flight board until the swarm returns, when she may be allowed to run in again. Clipping queens ensures that the first swarm will not go away, but the queen may be lost if not looked after. In case she be lost, the swarm will return, and re-issue with the first young queen as soon as she is ready for flight—mostly in about nine days from the issue of the first swarm, though it depends largely on the weather and how far the cells were advanced when the swarm left. If a swarm go off from successive heat without waiting to build cells, the next swarm will be longer in coming off than under normal conditions. Then, of course, bad weather may delay the second swarm or prevent it altogether.

## School Gardening.

By L. J. HUMPHREY, Special Instructor in School Gardening under the Department of Agriculture and Technical Instruction for Ireland.

**MUSEUMS.**—A most valuable adjunct to the teaching of the school garden is a collection of natural objects properly classified and arranged.

A collection of dried plants, though of great value to the systematic botanist, should not be the ideal of the school garden museum; dried plants offer but little resemblance to the living plant to the boy of school age, and it is far better to encourage him to collect for each lesson what plants he can find rather than to be able to show him a collection which, by its perfection, would damp his ardour for investigating the weeds of his plot.

A few specimens there should be to illustrate how plants should be dried and arranged, but more is not necessary. Diseased conditions in plants which may not always be available should be preserved when discovered, and a suitable arrangement of them made. Such an arrangement might consist of—(1) the healthy plant, (2) the diseased condition in all stages, (3) the materials used in its treatment, together with such explanatory matter as can be added without confusing the mind of the observer. Such an arrangement would result in the disease and its remedy being definitely connected in the mind of the pupil, and there would be much less tendency to forget the appropriate remedy for the disease.

Soil and sub-soil from the school garden should occupy a prominent position, and next to them should be shown their principal constituents as determined by mechanical analysis. The chemical compounds existing in the soil are apt to mislead young pupils if they are shown in crystalline form, and for that reason the chemical constitution of a soil as dealing with substances with which the scholar is unfamiliar are perhaps better omitted from the case. This argument does not apply to the sand, clay and humus of which soils are mainly composed, as all of them are substances with which every boy is more or less familiar, and which he can separate for himself.

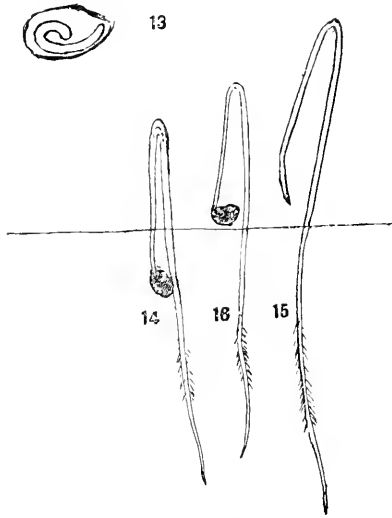
Local rocks from which to demonstrate the origin of the soil and the stones of the soil should be arranged to show their characteristic appearance, in this, as in all the museum, letting the exhibits truly represent the usual form, and avoiding all freakishness, as the unusual is too apt to confuse rather than elucidate, which should be the sole object of the school garden museum.

A collection of the seeds of the garden and farm plants, as well as of such weeds as are of sufficiently frequent occurrence, should certainly be included. These should be stored when thoroughly dry in small bottles or tubes with tightly fitting corks or stoppers, and arranged in such a manner that the name, shape, size and colour of the contents can be readily seen. These collections should be easily accessible in order that the specimens may be passed round whenever the subject is under discussion. It should be also possible to remove a few seeds from the bottle when a more detailed examination is necessary, and when it is desired to test the knowledge of the pupils a few kinds can be mixed together, and the task of separating and identifying them will prove an interesting and instructive task.

The work to be done during June in the school garden will include the planting out of celery, leeks, cabbage, cauliflower, Brussels sprouts, broccoli, &c. Hoeing will be necessary between growing crops, both to keep down weeds and to check the evaporation of water from the soil. Tall-growing plants in the flower borders should be staked in good time, and any further thinning of annuals carried out.

## Answers to Correspondents.

**SEEDLING ONIONS.**—"A. B. C." (Cork) has noticed that the tips of all the first leaves of his seedling onions have withered, and asks "what is the matter?" There is nothing the matter, the phenomenon is perfectly natural. Let us explain. Each seed of onion contains a little thread-like embryo plant surrounded with a store of food (see fig. 13, representing the seed in section). On germination the tiny root is pushed out, and grows down into the soil. At the same time the first, or seed-leaf, lengthens, and all of it escapes from the seed, with the exception of the coiled tip that



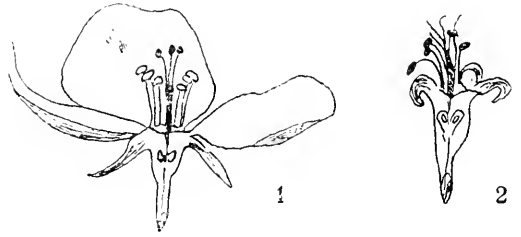
remains inside to digest and absorb the food for the young and hungry plant (see Fig. 14). The stretching seed-leaf gradually pulls the seed above ground, and when the food is exhausted the empty husk falls off, leaving the delicate, curved tip exposed (see Fig. 15). In the drying air it soon withers, hence the appearance that has alarmed our correspondent.

**TULIPS DISEASED.**—"C. W. P.," Co. Meath.—Your tulips are suffering from the tulip mould, a parasitic fungus known as *Botrytis (Sclerotinia) parasitica*. In the specimens sent for examination the fungus is entering on its resting stage, and forming thousands of small black bodies, the *sclerotia*. These will remain in the soil and cause re-infection of the plants next year. Gather up every diseased plant, including all the withered leaves and the bulbs, and burn the whole. Do not grow tulips for some seasons on land which has carried diseased ones.—G. H. P.

**PLANTS FOR CONSERVATORY** ("J. P. E.").—(1) The following list may be found useful:—Acacias (light-requiring); Azaleas (peat-loving); Begonias, Bouvardias (grow in frames during the summer and in an intermediate house during the winter); Camellias (dryness of either soil or air fatal to good health); Cannas (require a rich soil); Chrysanthemums, Cinerarias (sow the seed now for winter and next month for spring decoration); Fuchsias (require a rich soil); Lapagerias (climbers demanding good drainage, shade, and a liberal supply of water); Palms in variety (dryness at root to be avoided); Pelargoniums, *Primula sinensis* (sowings may be made now). (2) Please consult our advertisement pages.

**ORIGIN OF CULTIVATED PLANTS** (M. S.).—According to De Candolle and others the origin and period of cultivation of the plants you name are as follows:—Apple, southern Europe, and cultivated over 4,000 years; Apricot, China, and over 4,000 years; Gooseberry, temperate Europe, and less than 2,000 years; Plum, northern Persia, over 2,000 years; Tomato, Peru, over 500 years. The onion has been longer in cultivation than the leek, and the cabbage and turnip longer than the carrot and parsnip.

**SPRAYING APPLE TREES** ("Fructa").—We presume you have read Mr. Doolan's remarks in "The Month's Work" in our last issue. With regard to the general instruction to "spray early" in connection with the attack of the codlin moth, we may explain that the pupa of the moth after its winter's rest hatches out into the winged insect early in the year. The females lay their eggs in the blossoms of the apple, and we spray with a poisonous fluid in order to kill the little grubs that hatch out in a week or ten days after laying. Now it is too early to spray when the apple blossom is in the condition shown in Fig. 1, because the flower is probably not yet fertilised, and the spray-fluid will injure the stigmas and pollen. Furthermore, you may poison the bees that visit the flowers.



When fertilisation is effected the petals fall away, and the form of the flower at this stage is represented in Fig. 2. You will notice that the upper part of the flower (where the eggs are laid) is in the form of a saucer, but after a few days the lower part swells and the upper part contracts, so that the entrance to the top of the young fruit is practically closed by the persistent calyx leaves and tuft of withered stamens. (Fig. 3.) It will be obvious to you that the best time to spray for this particular pest is when the generality of the blossoms is in the condition represented by Fig. 2. If you delay until stage 3 is reached the spray-fluid will fail to touch the place where the tiny grub is gradually working its way down to the core of the swelling fruit, and which it will reach in about a week after hatching. Mr. Doolan's opinion of arsenate of lead is shared by other horticultural instructors in Ireland; it seems to be much superior to Paris green.



**BOOKS** (X. Y. Z.).—(1) You will find Watt's "School Flora," 3/6, useful, or if you are prepared to spend 9/-, select Bentham's "British Flora" (revised by Sir Joseph Hooker). (2) "Profitable Fruit Growing," by John Wright, 1/-.. (3) "Horticulturist's Note Book," by Newsham, 4/6, will exactly meet your requirements. (4) "Manual of Injurious Insects," Omerod, 5/.

**FERNS FOR ROOMS** (T.M.).—You cannot do better than select the Quivering Fern (*Pteris tremula*) and the Maidenhair.

**THE ORANGE LILY** (Ballymena).—Any ordinary garden soil will suit, but it prefers deeply-dug ground richly supplied with well-rotted manure. Good grown specimens will reach 6 or 7 feet in height. They will need staking. Its botanical name is *Lilium croceum*.

**WOODLAND GARDEN** (Mayo).—The simplest and best method would be to sow seeds now by simply scattering them with the hand and letting them shift for themselves. Sow them along the margins of the wood, along the old fences - anywhere in fact where you would care to see them grow, and where they have a chance of success. The furze and Spanish brown certainly would give charming results in time.

## BEE-KEEPING MADE PROFITABLE.

Every Bee-Keeper who desires success should read

# THE IRISH BEE JOURNAL

(Established 1901).

*Official Organ of the Irish and Affiliated, Cumberland, and Perthshire B. K. Associations.*

**THE LARGEST PENNY BEE PAPER IN THE WORLD.**

Received with enthusiastic approval and congratulations at Home and Abroad.

"One of the brightest in the world."—*Gleanings (American).*

"One of the liveliest and best Apian journals in all Europe."—*American Bee-Keeper.*

"Could not be equalled."—J. FAHY, Kilkenny.

"*Facile Princeps.*"—Rev. W. Y., England.

Monthly 1d.; 1s. 6d. per Annum, Post Free.

From the Office, IRISH BEE JOURNAL, Lough Rynn, Dromed, and of all Newsagents.

**EVERY WEED DESTROYED**

GARDEN PATHS, ON CARRIAGE  
BY DRIVES.&c

**"CLIMAX" WEED KILLER.**

ONE APPLICATION IS SUFFICIENT FOR 12 MONTHS. IT KILLS THE WEEDS ROOT AND BRANCH.

No. 1 tin, to dress 100 sq. yards, 2s. 3d. post free. No. 2 tin, to dress 400 sq. yards, 7s.

Write for our Catalogue of Garden Helps.

BOUNDARY CHEMICAL CO. LTD. CRANMER ST. LIVERPOOL

FOR

# Flower Pots

AND

# Horticultural Pottery

WRITE

**G. J. OWENS,**

**Brick and Pottery Works,**

**ENNISCORTHY.**

Agents for Dublin and District :—Messrs. E. BROWETT & SONS,  
7 Upper George's Street, KINGSTOWN.

## BEE-KEEPERS.

**Bee-hives** and all Appliances  
of the most modern Pattern  
supplied. Write for list.

**Irish Producers, Ltd.,**  
105 Capel Street, Dublin.

## MUSIC PRINTING A Speciality

Estimates  
Free



Superior  
Work

## BOOK-BINDING

"IRISH GARDENING" can be bound at this Office in handsome  
Cloth Case, gilt. Price, including postage, 3s. 6d.

Office—53 UPPER SACKVILLE STREET, DUBLIN

# *Power's Tested Seeds*

AS SUPPLIED TO

HIS MAJESTY THE KING

---

PURITY AND GERMINATION GUARANTEED.

---

*Special Quotations on Application.*

---

**WM. POWER & Co.,**

Seed Merchants and Nurserymen,

**WATERFORD.**

JULY 1908.

TWOPENCE.

# Irish Gardening

## Contents

	PAGE		PAGE
The Gooseberry Saw-fly . . . . .	97	Notes from Glasnevin . . . . .	107
Floral Time-keepers . . . . .	98	The Bouvardia . . . . .	107
Artificial Manures . . . . .	100	Prospects of Fruit Crop (Ireland), 1908	108
Refuse of Gardens: How Utilised . . . . .	101	The Month's Work—	
Current Topics . . . . .	101	The Flower Garden . . . . .	110
Budding . . . . .	102	The Fruit Garden . . . . .	110
Roses . . . . .	103	The Vegetable Garden . . . . .	111
Fruit Prospects (Ireland), 1908 . . . . .	104	Bee-keeping . . . . .	111
Mendelism . . . . .	105	Answers to Correspondents . . . . .	112

### DUBLIN

PRINTED AND PUBLISHED BY JOHN FALCONER, 55 UPPER SACKVILLE STREET.  
OBTAINABLE AT RAILWAY BOOKSTALLS AND FROM NEWAGENTS THROUGHOUT IRELAND.  
WHOLESALE AGENTS: MESSRS. EASON & SON, DUBLIN & BELFAST;  
GEORGE VICKERS, ANGEL COURT, STRAND, LONDON.



## WINDOW GLASS.

Polished Plate for Shop Windows.  
Ornamental Glass of all Descriptions.  
Horticultural Glass at Lowest Rates.

## DEATH TO THE WEEDS.

### HOYTE'S WEED KILLER.

*Strongly Recommended for the Destruction of Weeds, &c.*

Price, 2s. per gallon; 5 gallons, 1s. 6d. per gallon;  
10 gallons, 1s. 3d. per gallon; Original 40-gallon casks,  
1s. per gallon.

**HOYTE & SON,** The City of Dublin Drug Hall,  
17 LOWER SACKVILLE STREET, DUBLIN.

## BECKER BROS.

PRICES—		PRICES—
2/5, 2/2, 2/-,	<b>TEAS.</b>	2/5, 2/2, 2/-,
1/10, 1/8, 1/6,		1/10, 1/8, 1/6,
1/4, 1/2.		1/4, 1/2.

8 Sth. Gt. George's St.  
AND 17 Nth. Earl St. **Dublin.**

"Has stood the test of a quarter of a century."

## THOMSON'S Vine, Plant, and Vegetable MANURE.

Only Medal,  
Edinburgh, 1886.



Gold Medal,  
Edinburgh, 1891.

The result of long Practical Experience. Unrivalled  
for all Purposes. This valuable Manure is  
yearly growing in public favour.

ALSO  
**THOMSON'S SPECIAL  
CHRYSANTHEMUM MANURE.**

Perfect Plant Foods,  
SOLD BY ALL SEEDSMEN.

Price Lists and Testimonials on application to  
SOLE MAKERS—

**WM. THOMSON & SONS, LTD.,**  
Tweed Vineyard,  
CLOVENFORDS, GALASHIELS, N.B.

## NITRATE OF SODA

In 4 lbs. Tins for Garden Purposes  
At 1s. each. By post, 1s. 6d.

Can be had in DUBLIN from . . .

Messrs. DRUMMOND & SONS, Ltd., 58 Dawson Street

„ A. DICKSON & SONS, Ltd., 61 Dawson Street

„ HOGG & ROBERTSON, Ltd., 22 Mary Street

„ THOMAS MACKENZIE & SONS, Ltd., 212 Great  
Brunswick Street

„ EDMUNDSON BROTHERS, 10 Dame Street  
THE ASHBOURNE COMPANY, 15 Parliament Street  
SIR JAMES MACKEY, Ltd., 23 Upper Sackville St., Dublin.

In BELFAST—

Messrs. ALEXANDER DICKSON & SONS, Royal Avenue

In BALLYMENA—Messrs. SMITH & CO.

Seedsman and Manure Dealers, &c., can get these Tins in Crates containing  
two dozen Tins, at wholesale rates, on application to—

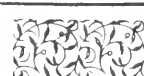
**JOHN SIMPSON, 15 Lr. Sackville St., Dublin**



# IRISH GARDENING



A Monthly Educational Journal devoted to  
the Advancement of Horticulture in Ireland



## The Gooseberry Saw-fly.

By Professor GEORGE H. CARPENTER, B.Sc.

COMPLAINTS have been received from many parts of the country during the last few weeks about the ravages of the cater-

pillars of this insect on gooseberry and currant bushes. A short account of its life-history may, therefore, be of interest to readers of IRISH GARDENING.

With most common insects it happens that the perfect winged form (*imago*) is much more familiar than the larva. Probably, however, there are many who know, too well, the black-spotted caterpillars that feed on gooseberry leaves, but who have never seen the parent-fly. It is a saw-fly (*Nematus ritesii* by name) belonging to the order of the *Hymenoptera*; this order includes gall-flies, ichneumon flies, ants, wasps, and bees—insects distinguished by the presence of two pairs of membranous wings not covered with scales like the wings of moths. Now, most *Hymenoptera* are well known for their excessively slender waist between thorax and abdomen; the “wasp-waist” has become proverbial. But the family of saw-flies (*Tenthredinidae*) differ from the great majority

of *Hymenoptera* in having no constricted waist; the base of the abdomen is broad, so that the body appears “parallel sided.”

*Nematus ritesii* is a small, pretty fly about  $\frac{1}{3}$  inch long and measuring  $\frac{1}{2}$  inch across the wings when they are spread out. The female has a blackish head and thorax and a bright yellow abdomen; in the male the abdomen is darker. The flies first appear in April or May, and the female lays a number of eggs below the surface of a single gooseberry or currant leaf, placing them near the ribs of the leaf and fastening them with a sticky secretion. In about a week the tiny caterpillars are hatched from these eggs. They are pale-green, only  $\frac{1}{12}$  inch long, and for a short time they all feed beneath the leaf on which they were hatched. As a result, the leaf becomes pierced with a large number of very small holes, and, when viewed from above, it looks as if perforated by numerous pin-pricks. Now is the



Photo by]

[T. Price.

Branch of Red Currant denuded of leaves by  
Caterpillars of the Gooseberry Saw-fly.

The Photograph shows the Winged Fly, the Caterpillar, and the Cocoon.

time for the watchful gardener, observing this state of affairs, to pick all such leaves and burn them with the young caterpillars.

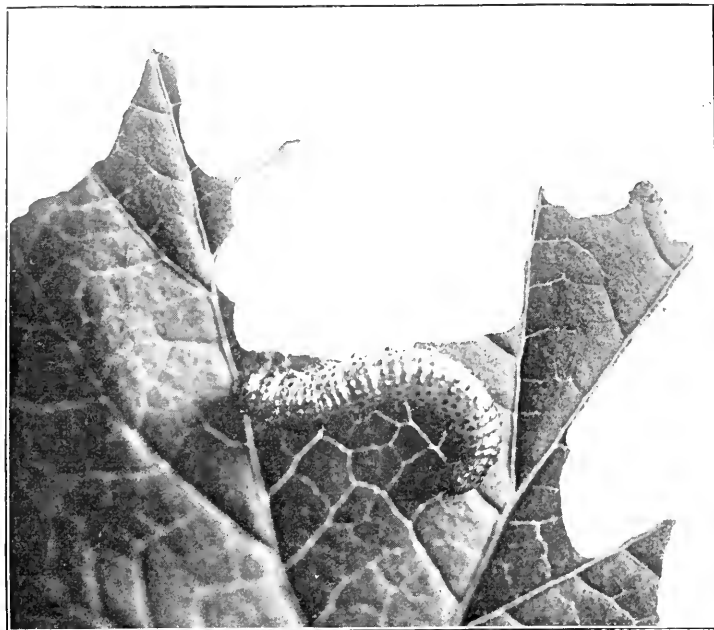


Photo. by]

[T. Price.

### The Caterpillar of Gooseberry Saw-fly

Feeding upon the Leaf of Red Currant.

By so doing much future trouble will be saved.

If left undisturbed, the caterpillars soon leave their native leaf, which no longer affords them enough food, and scatter about the bush. They eat greedily, and the leaves soon show too evident signs of their presence; in about a month they are fully-grown. Up to the last month their colour is green, with many conspicuous black spots, but in the final larvæ stage they are green or greenish-yellow without spots. Hence some gardeners naturally think that there are two distinct kinds. The larva of a saw-fly is a true caterpillar, with three pairs of jointed legs on the thorax, also with several pairs of prolegs on certain of the abdominal segments, as in the caterpillar of a moth. But the saw-fly larva has more numerous prolegs than the moth larva. In the latter we hardly ever find more than five pairs; in the caterpillar of the gooseberry saw-fly there are seven pairs. Further, in a moth caterpillar each proleg bears many tiny hooks; these are absent in a saw-fly larva.

While the caterpillars are feeding it is advisable to spray the leaves with some poisonous wash. The safest and most effective is arsenate of lead, which may be used without danger to within three weeks of the fruit harvest.

When the caterpillars are fully fed they spin oval, silken cocoons, sometimes on a shoot of their food-plant and sometimes just below the surface of the soil. Within its cocoon the

larva pupates, and the pupal stage lasts about three weeks, after which the flies emerge to pair, lay eggs beneath the leaves, and continue the life-history as before. There are usually three generations of flies in the year. The larvæ which are the offspring of the last brood always go underground to spin their cocoons, and in these cocoons they remain unchanged through the winter, not pupating until spring in preparation for the first brood of flies, which appear with the young leaves.

In these resting, wintering larvæ we have the vulnerable stage in the life-history of the species. Those gardeners who believe that "prevention is better than cure" remove the surface-soil to a depth of about 3 inches below the bushes in autumn or winter, bury it deeply, and replace it with fresh soil or manure. From ground thus treated no saw-flies will arise the next spring.



## Floral Time-keepers.

EVERYONE has observed that during the whole time of flowering the blossoms of certain plants open and close periodically. The phenomenon, so far as can be ascertained, may be due in any particular case to one of several causes—moisture, temperature, and light being the most evident. The best known example, perhaps, is the scarlet pimpernel (*Anagallis arvensis*) the petals of which are sensitive to the presence of atmospheric moisture—opening when the weather is comparatively dry and closing on the approach of rain. This sensitiveness has entitled it to be popularly called "the poor man's weather-glass." The flowers of *Crocus vernus* respond to rises and falls of temperature, opening if the air gets sufficiently warm, but closing when the temperature falls below a certain minimum (about 48° F.). The tulip naturally closes its flowers in the afternoon, but if there is a rise in temperature the flowers will keep open long after their usual closing time, but, on the other hand, in the case of snow-drop, which has a similar periodicity, a rise in temperature will only cause a partial opening. Light is an important factor, some flowers opening only when the intensity reaches a certain

point, and closing again in a dull light or in darkness. Strong, direct sunlight will, however, cause some flowers (marigold, for example) to close.

This opening and closing of the flower is an act associated with the normal growth of the petals. If the upper side is expanding and the growth of the lower side stopped, then of course the petals will move outwards and the flowers will open, while the converse happening the flower will close. So much has been proved, but *why* moisture or the lack of it, or temperature or light in varying intensities, should make one side of the petal grow and the other not are matters we know, at present, little or nothing about.

These being the chief factors influencing the periodical opening and closing of flowers, and remembering that different plants vary in degree of response to these stimulating influences, it is very easy to understand why many flowers open at different hours of the day and have regular successive closing times, as the intensity of the sun increases and the temperature of the air rises in the morning, and the one slackens and the other gradually falls towards the evening. Then, again, this periodicity gets more or less impressed on the constitution of the race as is shown in the feeble attempts of certain flowers to open or close at the "right" hour if they are kept under uniform conditions as to darkness or temperature.

It is interesting to observe and keep records of such periodicity in the opening and closing of flowers; and long ago, Linnæus and, since his time, many other botanists have constructed "floral clocks," by means of which the approximate hour of the day can be told by observing the exact time of the opening and closing of particular blooms. We need only mention a few to illustrate our point. The goat's beard, now in blossom, opens its head of bright yellow flowers at sunrise and closes them again at noon; hence its other common name of Jack-go-to-bed-at-noon. The common centaury also opens at sunrise and, at least partially, closes by three in the afternoon, but it is so sensitive to light that it rarely opens at all if the days are dull or cloudy. The dandelion opens about four o'clock in the morning, and the smooth hawk's-beard of cottage roofs (*Crepis virens*) about five. Scorzonera, another "composite" plant, opens at the approach of six o'clock, while between six and seven various kinds of sow thistles and hawkweeds slowly unfold. Exactly at seven the common lettuce, and at eight, if the weather be suitable, the scarlet pimpernel spread their petals to the morning sun. Venus's looking glass (*Specularia perfoliata*) of our gardens opens some time between these two hours.

Then comes the opening of the flowers of purple Savin (*Juniperus sabina*) at ten, and the Star of Bethlehem (*Ornithogalum umbellatum*) at eleven. This last named plant is indeed frequently called the "Eleven-o'clock-lady" by gardeners. One hour after mid-day finds the flowers of succory just opening, and at two the squill hyacinth. The marigold is an uncertain "riser" at three, while the "Four-o'clock-flower" of our gardens (*Mirabilis dichotoma*) is well known. It is not until five or six o'clock in the evening that the flowers of the sweet-scented night-flowering Catchfly (*Silene noctiflora*) open to let free their delicious perfume. Following these come the evening primrose, which after about half-an-hour's struggle with the enclosing sepals the flower suddenly bursts open at about six o'clock. Lastly, growers of Cacti know that the night-flowering cereus (*Cereus noctiflorus*) begins to open its glorious flowers about eight, and is in full bloom by midnight. This list could of course be considerably extended, but sufficient has been said to illustrate a particular section of plant study that is certainly not lacking in interest to lovers of gardens.

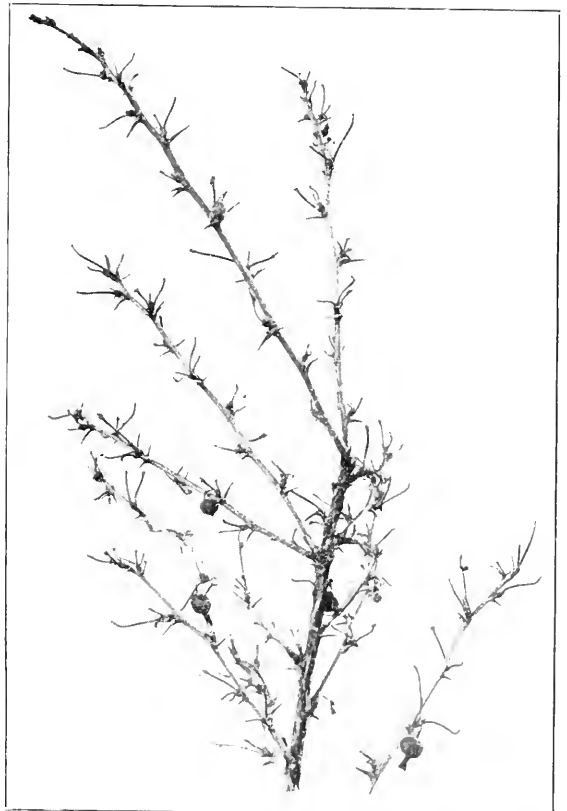


Photo. by]

[T. Price.

Branch of Gooseberry entirely defoliated by Saw-fly Caterpillar.

## Artificial Manures :

Or, "Back to the Land."

By JOHN W. McKay, A.R.C.S.I., Instructor in Agriculture for the County of Dublin.

[Continued from page 83.]

**POTASH SALTS**—like the common salt, which they resemble in many ways—are easily dissolved in water, and thus any part of them not used by the crop may easily be washed away in drainage waters, and thence make its way to the sea. Although such does happen, they are not altogether lost, for a small part may find its way back to the soil in seaweed. The greater part, however, remains dissolved in the seawater, and if by any chance portion of this water were to be cut off and exposed to evaporation, the salts would in the end be left behind. This is at present occurring in the Salt Lake district in America, and in other cases in various parts of the world. In past ages this must have taken place to an enormous extent in certain districts, as is to be seen from the immense deposits of such salts found—for example, in the German province of Stassfurt, where common rock-salt and potash salts are found in deposits many feet in thickness.

In these potash minerals the quantity of potash varies to a large extent; the richer minerals are usually crushed and sold off in the natural state as kainit, while the poorer minerals are purified and concentrated by several chemical processes, and converted into one of the two forms, muriate of potash or sulphate of potash.

We have now traced these manurial substances—phosphates, nitrogen, and potash—through their varied course from the soil back again to the same place, and it has been seen that, far from their being unsuited to the requirements of crops and the needs of the soil, all of them are quite natural in their origin, and in many cases have already helped in building up healthy plants and animals, and are quite suitable for again serving a similar purpose.

In some districts of South America, where there is little or no rainfall, deposits of a material resembling rock-salt are found, and mixed with this material are sand, earth, and other impurities. These are removed by washing and dissolving with water, which is then evaporated off, and the manure, nitrate of soda, is left behind in a practically pure form. Nitrate of soda is useful to the crop on account of the nitrogen it contains, but how the nitrogen came to be bound up in such a material seems difficult to explain. The general opinion among scientists is that it was taken from the air through the agency of germs or bacteria. Every shower washes down a small quantity of the inexhaustible supply of

nitrogen contained in the air; in addition, certain plants—notably the clover family—are able to obtain part of their supply of nitrogen directly from the air, and, by their subsequent decay in the soil, increase the amount available for other plants.

In past ages vegetation must have been much more prodigal in certain districts than at present, and when, through geological or other changes, these great quantities of vegetation were covered over and became partially decayed, our present supplies of coal were formed. When coal is burned the nitrogen, formerly stored up in these plants, is set free in various forms, but mainly as ammonia, and as this can be converted into a valuable form of manure it is now the custom, in most industrial establishments where coal is used in quantity, to so convert the ammonia. After passing through various complicated processes it is changed through the agency of sulphuric acid into sulphate of ammonia—an extremely valuable manure on account of the considerable amount of nitrogen which it contains.



## The Herbaceous Border.

**ATTEND** to any tall herbaceous plants that require staking. Never use a tall stake when a small or lighter one would support the flower stalk. Always stake from the back of the flower stalk. Nothing looks so unsightly in the border than stakes sticking up over the heads of the flowers.

After delphiniums have done flowering cut the flower stalk down, and the plants will flower again in the autumn.

Transplant all biennial seedlings out into nursery beds as soon as they are fit; by doing so the plants will be fine and sturdy, fit to plant out into their flowering quarters in October. Cuttings of pinks, *Arabis alpina*, *Alyssum saxatile*, the double sweet rocket, and pentstemons will strike roots if put in under a close frame at the end of this month. Select a cool place, keep close and shaded from hot sun until they begin to make growth. When they are rooted the lights can be taken off as the plants should be grown sturdy.

Layer carnations, pansies and violas should be cut down. Place a handful of fine soil in the centre of each plant, and the young shoots will push up through the soil. Each shoot will be a rooted plant in the autumn, fit to plant out.

FRANK HUDSON.



"Sing! sing me a song that is fit for to-day,  
Sing me a song of sunshine, a warm, sweet lay,  
Blue larkspur and bold white daisies and odour of  
hay."  
—Bevington.

## Refuse of Gardens: How Utilised.

By WILLIAM JOHNSTON, Horticultural Instructor, Co. Longford.

**W**HEN properly looked after and carefully treated, a large quantity of the refuse or rubbish of gardens may be made of intrinsic value. Throughout the year, but more especially during the summer months, we may expect to find large quantities of weeds in most of our gardens. These weeds, together with the refuse of the vegetables grown in the garden, ought to be cleared away so as to give the growing crops, the legitimate occupants, the full benefit of the ground they occupy, to allow free access to the other important agencies—air, heat, and moisture—to fulfil their respective duties to the best advantage for the future success of the crops; besides, it enhances the value and adds to the appearance of gardens when properly tilled and cleanly kept, as weeds only occupy ground that should be growing valuable plants. If all the weeds and rubbish were collected and properly treated they would add considerably to the food material of the gardens, as they contain a vast amount of plant food if only made available.

**METHODS OF UTILISING RUBBISH.**—There are three methods we might employ to dispose of this rubbish—viz., (a) digging it into the ground immediately, (b) burning it in heaps after collecting, and (c) making or converting it into a compost heap. The first of these operations gives very little trouble, but is the least satisfactory.

**BURNING OF RUBBISH.**—Perennial weeds such as nettles, couch grass, coltsfoot, &c., should be carefully lifted, collected together, and burned. This can best be done when the prunings of hedges, together with the rubbish obtained from the rows of worn-out peas and beans, &c., are made use of when dry, so as to produce a good blaze to dispose of the roots of these bad weeds. A calm day is the most suitable for this purpose, as the fire then smoulders rather than flares, and leaves the ashes in a compact heap after the fire has burnt out. The ashes so obtained are of great value either applied as a top-dressing to vegetable crops which suffer from attacks of insects or evenly spread over the surface, and dug or forked in to enrich the ground for the succeeding crop. Young plants if dusted with the ashes, when cold, that is obtained from the burnt rubbish will aid in preventing their being attacked by insects, besides assisting in stimulating the plants to more rapid growth.

**MAKING OF RUBBISH INTO COMPOST HEAPS.**—Annual weeds, such as milkweed, groundsel, chickweed, &c., if we intend to obtain the greatest amount of food material from them we must start and collect a rubbish heap, because these weeds, together with vegetable refuse, when left in a heap produces a large quantity of humus, or decayed vegetable material. If a soil is to be productive it ought to contain a sufficient quantity of humus for the use of plants. The rubbish should be collected together and placed in a heap in some out-of-the-way corner, so as to be as unsightly as possible, in order to allow it to decay. If we apply some slaked lime and soot as the heap is being collected and made, these materials will aid in assisting decay, besides enriching the compost heap at the same time. Make the heap in a low pile, having a flat surface, and when about one foot high apply a good dressing of soot, after which place another layer of rubbish on top. When about another foot high give a dressing of slaked lime, and continue these layers until all or nearly all the weeds and rubbish will be utilised in this way, always applying alternate dressings of soot and lime while the heap is being made. Give the heap an occasional turning so as to encourage the more rapid

decay of the rubbish, besides to thoroughly mix all the materials of which the heap is composed. Let the heap remain for about a year, after which dig it into the soil, and it will be found to be a mass of rich fertilising material, well-rotted and immediately available for assimilation by the plants.

**CROPS AND SOILS BEST SUITABLE.**—The rubbish heap when dug into the ground intended for vegetables will be invaluable to the future success of all vegetable crops; it will greatly assist in renovating flower borders, and will be found useful in mixing with the soil intended for plants in pots or boxes.



## Current Topics.

By PETER BROCK, Horticultural Instructor, Co. Fermanagh.

**T**HE warm weather at the end of May soon showed its beneficial effects on crops that, owing to the long continuance of rain in spring, were put in late. Sprouted potatoes responded quickly to the warmth, and everywhere they are now found to be leading from those planted three to four weeks earlier in the orthodox way, and in many cases when the land was too wet to handle or tramp on. Customs die hard. However, the object lessons in the advantages of sprouting potatoes are now so convincing that every argument against the modern method of preparing the seed and planting later falls to the ground. The apple blossoms opened under ideal weather conditions, the bees having a grand time collecting nectar and pollen, thereby assisting nature in the work of fertilization. The absence of frost or cutting winds during the time apples were in flower has done much to show owners of orchards the damage that is being annually caused by the apple psylla. Where winter and spring spraying was neglected considerable injury has been done by this pest.

June has for the most part been so chilly as to indicate the proximity of icebergs. Doubtless a warmer spell may be near; if so, those interested in the protection of the potato crop from the dreaded blight should, in early districts, by the time this appears in print have the first spraying done. Considerable loss is annually incurred through putting off day after day till a few warm, damp days, with thunder and fogs, develop the germ which spreads with devastating "Will-o'-the-wisp" rapidity. Spraying after the disease appears may lessen the loss, but having the plants thoroughly protected by an efficient antiseptic coating of Bordeaux or Burgundy mixture, as recommended in the Department's Leaflet No. 14, is worth ten sprayings after the disease has indicated its presence by smell or the well-known first spotting of the leaves. The efficiency of spraying largely depends on how the work is done. It is a common occurrence to see men sprinkling potatoes with a knapsack sprayer in such a slovenly manner that the work could be as well done with a rose watering-can or a heather besom. To spray thoroughly the nozzles should be kept near the ground and directed to the under side of the leaves, and applied with sufficient pressure to show a white cloud of spray rising several feet above the stalks, thus thoroughly coating the stems and under side of the leaves, the spray falling back will invariably be found sufficient for the upper surface of the foliage.

I have lately met with several severe attacks on gooseberries by caterpillars of the magpie moth. Spraying with Swift's arsenate of lead in the proportions of 1 lb. arsenate of lead to 50 gallons of water has, in every case, proved an effective remedy. There is a prejudice against using this poison on bushes when the fruit is nearly fit for use. If, however, the spray is directed to the upper surface of the leaves, very little of it reaches the fruit, and the danger is then more imaginary than real.

# Budding.

By E. H. BOWERS, with Illustrations by the Author.

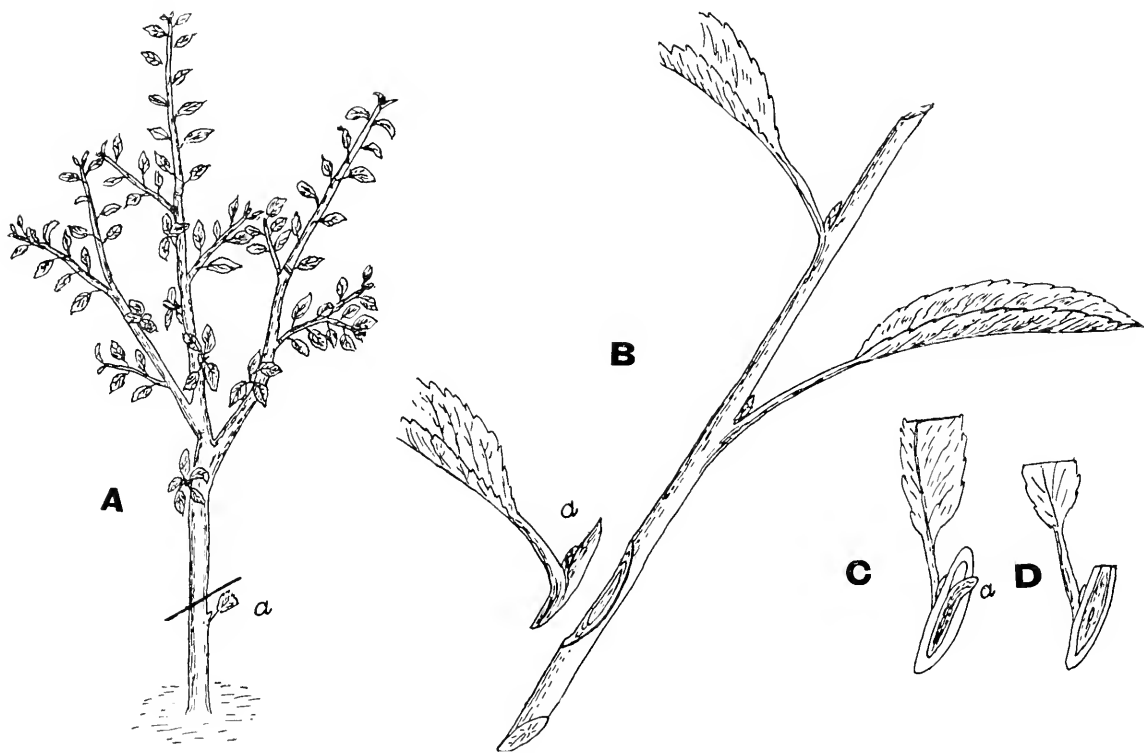
**B**UDDING is a method usually practised in propagating fruit trees, roses, many choice shrubs, &c. Stone fruits in particular, such as plums, cherries, &c., are more successfully propagated by budding than by grafting. There are several methods of budding, such as "ring" and "inlaid," but the method here described will be found the most satisfactory in general.

Budding is best done in July, and, unlike grafting, must be done while there is a strong flow of sap. It is also a more rapid method, and is greatly practised in nurseries where large numbers of young trees are required. This is another advantage in budding—if the bud fails the same stock can be grafted the following spring.

ready for insertion. This being done make a T cut (Fig. E) in the bark of the stock about three or four inches from the ground; next raise out the bark (Fig. F) sufficiently to allow the bud to be slipped into position (Fig. G); then to finish the operation tie round with a piece of worsted string, which will prevent the bark from opening too much afterwards, and will keep the bud held firm until the union takes place. In the course of a few weeks it will be known if the bud has "taken;" this will be so if the leaf drops off, but if it wilts, becomes shrivelled and remains attached, the bud will have failed. No growth will be made until the following spring, when the stock must be cut off just above the bud. (See dark line, Fig. A.)

Although the above chiefly applies to fruit trees, the same method will do for roses, except that the bud is inserted in the stronger current year's growth.

Some of the best results I have ever got with roses



Explanation of Diagrams.

A—The "stock." a—The place where the bud should be inserted, usually from 3 to 6 inches from the ground. The black line marks where the stock must be cut away in the following spring. B—A young shoot from which the buds are obtained; this should be the current year's growth. a shows how the bud should be cut out; use a very sharp knife. C—Preparing the bud for insertion; remove the woody portion (pith) a, taking care that the embryo bud is *not* also removed with it. Half the leaf should also be cut off. D—The bud ready for insertion.

The bud must be inserted between the bark and wood of the stock. To commence operations, select a well-ripened shoot of the current year's growth on which the buds (which will be found at the axils of the leaves) are strong and plump; insert a sharp knife about half an inch above the bud, and cut out the piece containing the bud and leaf (see a, Fig. B); this piece should be about an inch and a quarter long. When this cut is being made some of the woody portion (pith) will also be cut out, and attached to the bud. This must be removed by picking it out with the knife (see a, Fig. C), but care must be taken that the embryo bud is *not* also removed from the inside; sometimes this comes away with the "woody" portion. Next cut away half the leaf, and the bud is

were from bushes budded in the latter part of August and early in September. If roses are budded too early the buds start into growth, and these may be too weak or unripe to survive a severe winter; by budding late they remain dormant until spring, at least that is my experience in rose budding in cold, late districts in the west of Ireland.



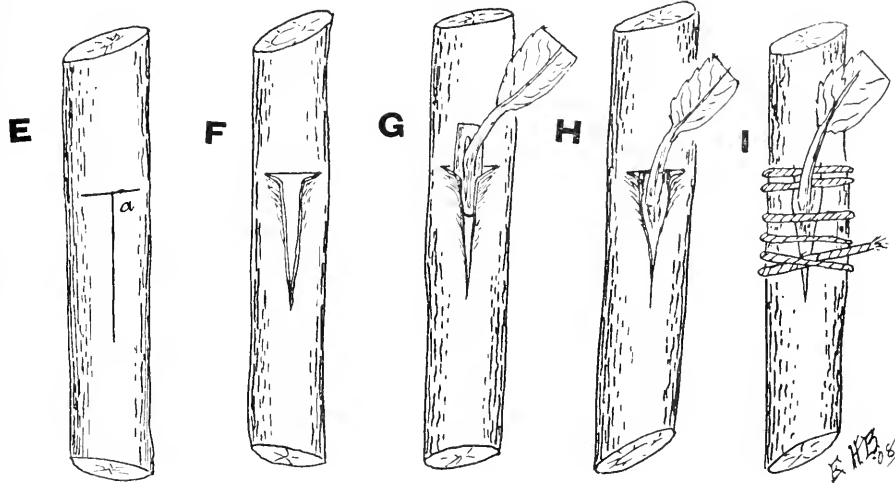
"Where the blackbird sings the latest,  
Where the hawthorn blooms the sweetest,  
Where the nestlings chirp and flee  
That's the way for Billy and me."

—Hogg.

## Roses. By O'DONEL BROWNE, M.D.

**B**UDDING.—The art of budding roses generally occupies all rose growers' time during July and August, for by this means next year's stock of maiden plants is prepared; and the rose-grower who likes to cut the very best blooms should lay in a plentiful supply of briars every autumn. There is nothing difficult about the operation except to describe it on paper. Budding consists in inserting a bud or dormant eye of a rose tree into a briar, with the object of getting a rose tree on briar roots. According as you want a standard or dwarf plant, so you bud a standard or dwarf briar. Let us suppose we require a standard, as this is the easiest and cleanest to manipulate. Standard stocks are to be had during the autumn out of all our hedges, previous leave being obtained from the owner of the land. The wild briar, preferably one about one inch thick, of two years old—one whose pith is scarce and the bark mottled or streaked with reddish lines—should be dug up. Try and keep as much fibrous roots as you can, but in nine cases out of ten you get a root like a hockey stick. Trim the root well back, remove any suckers, and when you have collected as many as you require let them be planted in your garden where they are to remain. No side growths should be left on the stock. In the spring young shoots start to push out of the stock, as well as suckers from below. Remove all suckers back to root, and only allow three young growths to grow above—choosing those fairly close to one another. It is on these you bud during July. Now, supposing you are ready to bud these in July, certain requirements must be fulfilled. First, these growths must be half ripe—*i.e.*, the thorns must fly off when pressed laterally; there must be a good flow of sap into these laterals. Secondly, the buds to be inserted ought to be also half ripe; and, thirdly, the operation should be quickly and neatly done. The buds are to be found where the rose-leaf joins the stalk on which your rose is growing. In the middle of July to end of August, buds taken from a shoot, the flower of which has just bloomed, are generally in right condition. Sometimes the upper buds have begun to grow and are useless; what you require is a plump bud. Those found about the middle of the shoot are right. Have lengths of raffia about six or eight inches long at hand, and a very sharp budding knife. Cut your shoot from your rose tree, immediately removing all the leaves, save one eighth of an inch of each leaf-stalk, and carry this shoot to your briar in damp moss. Hold the shoot with the flowered end pointing to you. Insert your knife blade about a quarter of an inch *behind* the bud and leaf-stalk, and commence cutting towards you until you have passed the bud. Catch the bud lying on the blade between blade and thumb, and send it away from the shoot. Turn the bud upside down, holding it in your left thumb and finger. Bend back the long tongue of bark towards your feet, and

catch hold of the bit of wood left projecting with thumb and finger of right hand; with a quick rolling motion of your right wrist, roll this bit of wood away from your left thumb which holds the bark by the leaf-stalk. If the bud is in proper condition it should readily separate, leaving the bud inside the bark perfectly intact, and *level* and smooth. If there is a dimple throw the bud away and try again. You have torn the living germ out on the bark, and your bud is useless. Now rub off the thorns and leaves on the briar lateral for two inches or so where the lateral emerges from the briar. Enter your knife point close to junction, and gently divide *only* the bark towards you for about one inch. Make a cross-cut at the end of this cut, so forming a **T**. With the flattened end of your budding knife, put into the junction of these two cuts, *gently* lift the bark up on both sides. Take your bud in left forefinger and thumb by the leaf-stalk and slide it quickly down under these raised flaps, and *try and get your bud to go as close to the old wood of the briar as possible*. This is why I advised you when



Explanation of Diagrams.

E—With a sharp knife make two cuts in the bark—one straight down about  $1\frac{1}{4}$  inches, the other across at top about  $\frac{1}{4}$  inch. F—With the bone end of the budding knife raise the bark sufficiently to allow the bud to be slipped in. G—The bud being slipped into position. H—The bud in position. I—Budding completed; tied round with a piece of worsted string.

cutting your bud to begin *behind* the bud. With your raffia bind the bud firmly in, paying particular attention to get one lap of your tie just *behind* the bud, pressing bud down flat to briar.\* Trim your tongued-shaped flap of bud level with the cross-cut on **T** of briar, and tie with the raffia. You must *not* cut any of the wild growth, save the actual **T** until November. Bud two laterals on each standard label, or note variety in a book, and go on and bud more.

*Dwarf* stocks are either seedlings or briar cuttings. These are kept earthed up until budding time, and well watered and hoed. Clean away all the earth from as many as you intend working down as close to the roots as possible. With a rag give the stock a rubbing until it is quite clean. Make your **T** cut, and cut your bud just the same as you do the standard, only do not replace the earth back until winter. Be most careful to allow no foreign body into the wound—remembering budding is a forced junction of rose and briar, and any dirt does not enhance success. Do not cut any portion of briar save the **T** cut. If you find that the bark does not readily separate from the wood give your briars a good soaking, and defer budding to another day.

\*The wood should look white and not green. If green, the shoot is not ripe enough, and union may fail.



## “IRISH GARDENING.”

AN ILLUSTRATED MONTHLY.

OFFICES—53 UPPER SACKVILLE STREET, DUBLIN.

**Publishing Date.**—First day of each month.

**Subscription.**—3/- per annum, post free.

**Editorial.**—All Editorial Communications, copy, and photographs should be addressed to “The Editor.”

**Business Communications.**—All letters regarding Subscriptions, Advertisements, and other business matters must be addressed to “The Manager.”

**Wholesale Agents.**—Newsagents will please send their orders for Copies to either Messrs. Eason & Sons, Dublin and Belfast; Messrs. M. H. Gill & Son, Dublin; Messrs. Robb & Co., Belfast; or Messrs. News Bros., Cork.

**London Agent.**—Mr. G. Vickers, Angel Court, Strand, London.

**Remittances.**—Postal orders, cheques, &c., should be crossed and made payable to The Manager, “Irish Gardening.”

## Fruit Prospects (Ireland) 1908.

IN another part of the journal we give a detailed report on the fruit prospects of the present season throughout the four provinces of Ireland. We desire to express our sincere thanks to the numerous correspondents who so courteously and so promptly responded to our request for information. Mr. W. S. Irving, who, as Departmental Inspector of Fruit Plots, has unique opportunities for making himself acquainted with the existing condition of our orchards, has very kindly tabulated the results of the various reports, and, in addition, has drawn up the following summary for the country as a whole:—

Though we had a very wet, dull autumn last year, the wood of fruit trees and bushes ripened up well, and formed fruit buds to a greater extent than most fruit growers had anticipated. The fruit crop prospects in the early spring were all that could be desired by growers in general, and they had hopes of securing very good crops of the various kinds of fruit.

These hopes were blighted by the very severe periods of intense cold of from 10 degrees to 14 degrees of “frost” on the nights of April 23rd, 24th and 25th, which caused great destruction to the blossoms of pears, plums, currant and gooseberries, which were then more or less in full flower. As the apple blossoms were as yet unexpanded it was thought they at least would be quite safe, but a little later, upon examination, it was discovered that many had been killed even in the bud stage, and as a matter of fact never opened at all.

APPLES are average, or perhaps above average, in general. Old orchards will as a rule be below average, many of the blossoms being killed in the bud by frost, and others by insects. Frost undoubtedly does a lot of damage to the apple crop, but in Counties Armagh and Fermanagh, and in the Blackwater and Suir

Valley districts, we firmly believe that much more damage was done to the apple blossom by the apple sucker and the apple blossom weevil.

PEARS AND PLUMS are a very poor crop in general. They seem to have suffered most from the frost at the end of April. A few wall trees here and there are bearing a fair crop of fruit.

GOOSEBERRIES are a bad crop in general; all the earliest flowers were killed just as they were setting fruit. Young bushes are bearing an average crop, but old bushes are much below the average. Gooseberry saw-fly has done a lot of damage to the foliage this season, while many of the correspondents report the presence of American gooseberry mildew.

CURRENTS will be good in general, though in some cases the blacks will be below the average, as many of the berries dropped just after setting.

CHERRIES—except in the Gormanstown and the Strawberry Beds (Lucan) districts—are not extensively grown, being chiefly confined to walled-in gardens. Though they flowered well they have in general set below the average. Morellos have set better than the sweet varieties.

RASPBERRIES will be well up to the average. In exposed positions they suffered from the effects of frost, the young canes being killed back, some to a length of one and a half feet.

STRAWBERRIES seem to be the redeeming feature in our fruit crop this year, as there will be a good crop in almost every plantation, though it will be late, and may be expected to be in full swing about the end of June. If dry weather continues the fruit will be firm and of first rate quality. The very early flowers were destroyed by frost, some growers wrongly believing that they were destroyed by fungi.

INSECTS have been very prevalent this spring, especially green-fly, on plums and gooseberries; and gooseberry saw-fly is reported from almost every county as having done considerable damage. Tortrix moths, winter moth, codlin moth, apple sucker, apple blossom weevil, and black currant mite are also reported from almost every district, and it behoves fruit growers to do everything within their power to check the ravages of these pests.



MR. EDWARD KNOWLDIN has been appointed Secretary to the Royal Horticultural Society of Ireland.

THE East Wicklow Horticultural Society hold their Annual Show at Greystones on the 29th of the present month. Copies of the Schedule may be had on application to Mr. J. B. Wills, Hon. Secretary.

THE Newtownards Horticultural Society have issued their Prize Schedule in connection with the Show to be held on the 3rd of September next. The Secretary is Mr. David Orr, Victoria Avenue, Belfast.

# Mendelism.

By Professor JAMES WILSON, M.A., B.Sc.



SINCE the days of Darwin there have been no more illuminative workers for breeders of plants and animals than De Vries and Mendel. It may be heresy to say so, but, for such breeders, De Vries and Mendel have been far more illuminative than

Darwin himself. Darwin showed us that plants and animals vary, but, as he thought, slowly and constantly: at any rate that racial changes are brought about by slow and constant variations. De Vries has shown us that changes come suddenly, and Mendel has furnished the explanation, or, at any rate, some part of the explanation. Listen to a very beautiful description of De Vries's work from Professor Arthur Thomson's recently published "Heredity":—

"In 1886 De Vries began hunting about around Amsterdam for a plant which would show hints of being in what we may call a changeful mood. He tried over a hundred species, bringing them under cultivation, but almost all were disappointingly conservative. It seemed as if most of the species around Amsterdam were in a non-mutable state. It is possible, as Weismann suggested in one of his first evolutionary essays (1872), that in the life of species, periods of constancy alternate with periods of changefulness. The human historian has often made a similar remark.

"In the course of his wanderings around Amsterdam, De Vries came across a deserted potato-field at Hilversum—a field of treasure for him. For there he found his long-looked-for mutable plant, an evening primrose (*Enothera lamarckiana*). Like its nearest relatives, *Enothera biennis* and *Enothera muricata*, which it excels in size and beauty of flowers, it probably came from America, where it is a native. It had probably 'escaped' at Hilversum about 1875, and in the following ten years it had spread in hundreds over the field. It had been extremely prolific in its freedom; but that was not its chief interest.

"Its chief interest was its changefulness. It had, so to speak, frolicked in its freedom. Almost all its organisms were varying—as if swayed by a restless tide of life. It showed minute fluctuations from generation to generation; it showed extraordinary freaks like fascination and pitcher-forming; it showed hesitancy as to how long it meant to live, for while the majority were biennial, many were annual, and a few were triennial; best of all, it showed what can hardly be otherwise described than as new species in the making.

"It is possible that the prolific multiplication in a new environment may have had something to do with the awakening of the impulsive mutability.

"In 1887, a year after his discovery of the potato-field, De Vries found two well-defined new forms—a short-styled *O. brevistylis* and a beautiful smooth-leaved *O. luevifolia*—distinguishable from the parent in many

details. He hailed these as two new 'elementary species,' and he applied one of the crucial tests of specific or sub-specific rank: Did they breed true? He found that this was so; from their self-fertilised seeds similar forms arose. Neither of the two new forms was represented in the herbaria at Leyden, Paris, or Kew; neither had been described in the literature of *Onagraceae*. They seemed to be distinctly new. It is interesting to note that in 1887 there were few examples of these two new elementary species, and that each occurred on a single plot on the field. The impression conveyed was that each had arisen—by a sudden mutation—from the seed of an individual parent.

"The next chapter in the famous investigation began with a transference of samples of the new forms and the parent stock—partly as plants and partly as seeds—from the potato-field at Hilversum to the botanic garden at Amsterdam.

"The three stocks gave rise under cultivation to many thousands of individuals, which bred true along certain lines, and yet gave rise to other new forms. In short, De Vries had found a plant in the process of evolution.

"The predisposition to mutability—which remains a mystery—was present. De Vries gave it scope, and like the primeval gardener he had the pleasure of giving names to a crop of new creations which emerged before him. From each of these three samples there arose distinctive groups—which if they had been found in nature would have been reckoned as distinct species of evening primrose. But the most interesting feature was the apparent abruptness in the origin of the new forms. They seemed to rise by leaps and bounds, by organic jerks; they illustrated what De Vries has called 'mutation.'

Mendelism comes in now to explain the advent not of these new forms perhaps, because I do not know enough about the evening primrose to say, but certainly of other new forms of plants and animals with which gardeners and farmers are well acquainted. A black breed of fowl is bred with a white breed, and the young are blue. When these blue hybrids are bred together only a half of their young again are blue: one half the remainder being black like one of their grandparents and the other half white like the other.

Mendel formulated a theory to explain this. He conceived the idea that every plant and animal must carry from its very beginning a lot of somethings which determine its future character: one to determine its colour, another its size, another the shape of one part, another the shape of another, and so on. He further conceived the idea that these determinants must be, as it were, twins: that each must have two component parts. This theory explains many phenomena in variation and heredity.

Let us take a simple case first, the case of the fowl mentioned above. The black fowl carried a colour determinant for blackness, the white fowl another for whiteness. Let us represent the black determinant by two small black circles and the white by two white ones, thus:—



The black determinant being carried by one parent and the white by another, the young

must carry a black half and a white half, one from each parent, thus :—



But breed now with the half-and-half animals, and what must happen? It is a question of chances. Both parents carrying mixed determinants, the black half of one may meet with either the white half or the black half of the other; so also may the white half, and then, given a sufficient number of matings, there are bound to be one pure white progeny and one pure black one to every two mixed ones. The following diagram will show—



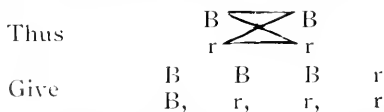
That is to say, the blue fowl are bound to leave young in the proportion of one pure black to one pure white to two hybrid blues; and the black ones will breed black when bred with black, the white will breed white when bred with white, and the hybrids will always breed the three colours in the proportion 1 : 1 : 2.

If a hybrid is bred with a pure one the young will be one half pure, one half hybrids, thus :—



But this only explains how hybrids breed back again, not how new varieties arise. Other experiments do this, however. Determinants do not always work as simply as they do in the case of the black and the white fowl. For instance, when black and red cattle are crossed, the young are not half way between in colour, but are all black. The black colour is dominant to the red, and gets its own way. When these hybrids are crossed together again their young do not come out in the proper ratio—one red, one black and two something else—but in the ratio one red to three black, the black colour still dominating the red. But there is this about them that two of the three blacks are really something else. They are animals carrying both determinants, like the blue fowl above, but with the black determinant dominating the red to apparent extermination. Yet the red colour is not really extinguished, it is merely subdued,\* for when the black-red hybrids are bred together one red appears in every four.

Let us put it graphically, using letters instead of circles, with capitals for the dominant colour and small letters for the subdued.



That is: one pure black, one pure red, and two that appear black, but are really black-reds in which black is dominant to red. These black-reds continue to reproduce in this way for ever.

But there is still more than this. Plants and animals vary in more than colour, and in many things at the same time. Let us take examples from animals because I am most familiar with them. Let us suppose the black and red animals above have another character in which they differ. Let them differ in size—one breed being stout and the other tall, stoutness being dominant over tallness. Then in the same way the hybrid generation should give one stout, one tall, and two stout-talls that appear to be stout, thus :—

S S S t  
S, t, t, t

Now, what is going to happen when we breed, say, a tall black animal with a red stout one: tallness and stoutness being dominant? Taking colour alone, when we breed with the hybrids we shall have, as we have seen above, one black, one red, and two apparent black ones. Add on the size variation to these three different kinds and we get each of them reproducing their own colour, but with the size varying in the proportions of one stout, one tall, and two apparent stouts. Thus :—

The Blacks—	BB	BB		
	SS	St		
	BB	BB		
	St	tt		
The Black-reds (eight instead of four)—	Br	Br	Br	Br
	SS	St	SS	St
	Br	Br	Br	Br
	St	tt	SS	St
The Reds—	rr	rr		
	SS	St		
	rr	rr		
	St	tt		

Let us arrange them symmetrically and we shall see the result more clearly :—

BB	BB	Br	Br
SS	St	SS	St
BB	BB	Br	Br
St	tt	St	tt
Br	Br	rr	rr
SS	St	SS	St
Br	Br	rr	rr
St	tt	St	tt

Those underlined are pure in respect to both colour and size, the others are all hybrids in

\* Mendel used the word "recessive."

respect of one or both. *But those underlined twice are new pure breeds, which if bred with their own kind will go on breeding pure.*

But notice now what we have, and the horticulturist has only to transfer his mind from cattle to sweet peas, or some other hybridized plant, to see some part of the meaning and power of Mendelism. Leaving aside the question of purity, we have, apparently, beginning at the lower right hand corner, one red tall, three red stouts, three black tall, and nine black stouts. Have we not very similar numbers among hybrid plants?



### Notes from Glasnevin.

*Escallonia Langleyensis* is one of the prettiest shrubs we have for our gardens. It is perfectly hardy, and is a cross between *E. Macrantha*, which has red flowers, and *E. philippiana*, which has masses of small white flowers. The seedling was raised by Mr. Seden at Messrs. Veitch's nurseries, and called after that firm's establishment at Langley, and has numerous small pinky-red flowers, being intermediate between its two parents. *E. Langleyensis* is a useful subject for a wall, or as a bush in the open, where it becomes a beautiful and graceful plant. It can be propagated by means of cuttings put in in the early autumn under a glass.

*Abutilon vitifolium*.—This is a native of Chili, and is hardy in most parts of Ireland, but in the milder portions it grows into fine large specimens covered with beautiful bunches of lilac flowers. As a wall plant, a bush in the open, or as a cool house shrub, it does well. In the latter case it requires a good deal of room, and like most of its family (*Malvaceae*) it is very subject to red spider. When raised from seed the colour varies a little from a dark lilac to a very pale shade. This plant was introduced from Chili, in 1836, by Captain Cottingham of Dublin, and is figured in the Botanical Register No. XXX., plate 57.

Both these shrubs are now in flower in the Botanic Gardens, Glasnevin. R. M. POLLOCK.



"To my mind there is a great kinship between women and flowers, and the same adjectives are appropriate to both; they might even be almost distinctly classified. I do not judge by the books that give me their meanings, but rather by what they mean to me; and to me the iris is stately and haughty, the rose lovely rather than beautiful, the gladioli proud, and the sweet peas merely pretty. The lily is to me the emblem of chastity and love combined, while the cold and scentless camelia represents a rigid virtue without any redeeming tenderness, and the purple pansy is the soul of gentle friendliness. The snowdrop is shy, but the little blue lobelia is elegant as well, and the joyous daffodil is the embodiment of hope and promise. Poppies, gardenias, tuberoses, and all the more deadly-scented flowers are like the wantons of the earth, and the heliotrope, mysterious and interesting, is like a woman with a history, who attracts you without your knowing why. The capricious tulip, with its graceful bending stem, is the *belle-laide* of the garden, and the gracious water-lily reminds me ever of the virtues of grace and dignity; but the lily of the valley is my favourite—it seems to waft above it a fragrance that is like a very incense of modesty and purity."—*R. Neish* in "*A World in a Garden*."

## The Bouvardia.

**B**OUVARDIAS are a valuable addition to our greenhouse plants. Their flowers can also be used in a cut state. They strike readily from cuttings inserted in a mixture of equal parts loam, leaf-soil and coarse sand.



A Flowering Spray of Bouvardia.

The pots for their reception should be clean and well drained; press the soil rather firm, and dibble the cuttings around the edge of the pots; the soil should have a sprinkle of silver sand on the surface, water carefully, and plunge in gentle bottom heat; place a hand-light or bell-glass over the pots, shade from strong sunshine, and on no account should the soil be allowed to become dry; under favourable conditions they should be rooted in four or five weeks, when they may be potted off into thumb pots, using an equal proportion of fibrous loam-leaf soil and sand. Remove to a temperature of sixty to seventy degrees, until the pots are well filled with roots. To ensure shapely plants they should now be pinched to the first joint, which may be continued as growth advances, the result will be more bloom, and sturdier plants. When giving them the final shift to their flowering pots a little artificial manure may be added to the compost. During the summer months they should be placed on a bed of coal ashes in a cold pit or frame, keeping shaded from strong sunshine; the surroundings should be kept in a moist state, in order to ward off attacks of red spider; ventilate freely on all favourable occasions. Should green-fly make its appearance, fumigate at once. When in strong growth they will be benefited by occasional applications of weak liquid manure.

P. MAHON.

# Prospects of Fruit Crop (Ireland), 1908.

NOTE.—The Reports here compiled refer to the prospects as far as ascertainable up to 15th June. The names of Horticultural Instructors are starred (\*).

County and Locality	Apples	Pears	Plums	Cherries	Gooseberries	Currants	Raspberries	Strawberries	Names of Correspondents
<b>ULSTER.</b>									
<i>Armagh</i> —	-	-	-	-	-	-	-	-	-
Richhill	Good	Below av.	Average	—	Bad	Below av.	Below av.	Very good	CHARLES LAMB,
Loughgall	Average	Bad	Bad	Bad	Bad	Below av.	Below av.	Average	J. J. DUNLOP.
<i>Derry</i> —	-	-	-	-	-	-	-	-	-
Moncymore	Below av.	Below av.	Below av.	—	Bad	Bad	Below av.	Good	J. RUTHERFORD.
<i>Down</i> —	-	-	-	-	-	-	-	-	-
Whole County	Very good	Below av.	Average	Average	Bad	Very good	Average	Very good	T. SCOTT.*
Gilford	Very good	Bad	Bad	Good	Bad	Good	Very good	Very good	J. LYNAS.
Orangefield	Average	Below av.	Below av.	Average	Below av.	Very good	Average	Very good	D. BAILLIE.
<i>Fermanagh</i> —	-	-	-	-	-	-	-	-	-
Florencecourt	Very good	Bad	Bad	Average	Average	Very good	Very good	Average	W. SUTHERLAND.
Crom Castle	Good	Bad	Bad	Good	Bad	Good	Good	Good	A. REID.
Whole County	Good	Below av.	Below av.	Bad	Bad	Below av.	Average	Good	P. BROCK.*
<i>Monaghan</i> —	-	-	-	-	-	-	-	-	-
Whole County	Good	Bad	Below av.	Average	Average	Good	Good	Very good	J. G. TONER.*
Dartry Castle	Average	Below av.	Bad	Good	Below av.	Average	Average	Good	J. HIPBURN.
<i>Cavan</i> —	-	-	-	-	-	-	-	-	-
Whole County	Below av.	Bad	Bad	Bad	Very good	Very good	Very good	Very good	L. DOUGLAS.*
Farnham	Good	Average	Below av.	Average	Below av.	Good	Average	Very good	WM. BERRY.
<i>Tyrone</i> —	-	-	-	-	-	-	-	-	-
Clogher	Average	—	—	—	Below av.	Good	Good	Very good	D. McLARNE.
<b>MUNSTER.</b>									
<i>Cork</i> —	-	-	-	-	-	-	-	-	-
East	Very good	Below av.	Bad	Bad	Good	Good	Good	Very good	J. BLEMENS.*
West	Average	Bad	Bad	Bad	Average	Average	Below av.	Good	J. BRACKEN.*
Clonakilty	Below av.	Bad	Bad	Bad	Average	Below av.	Good	Very good	JAMES HARNEY.
<i>Kerry</i> —	-	-	-	-	-	-	-	-	-
Killarney House	Below av.	Below av.	Bad	—	Average	Below av.	Good	Very good	A. E. ELGAR.*
Northern Section	Bad	Below av.	—	—	Below av.	Good	Average	Good	W. F. EARLES.*
Southern Section	Good	Not much grown	Bad	—	Very good	Good	Average	Good	W. F. EARLES.*
<i>Waterford</i> —	-	-	-	-	-	-	-	-	-
Curraghmore Gdns	Below av.	Bad	Average	Below av.	Average	Very good	Good	Good	D. CROMBIE.
Dungarvan	Average	Bad	Bad	—	Below av.	Very good	Good	Good	G. DOOLAN.
<i>Limerick</i> —	-	-	-	-	-	-	-	-	-
Whole County	Good	Bad	Bad	Bad	Good	Good	Average	Good	D. SHEPPARD.*
<i>Tipperary</i> —	-	-	-	-	-	-	-	-	-
North County	Very good	Average	Below av.	Good	Average	Good	Good	Very good	J. J. CAROLAN.*
Cloughjordan	Average	Good	Below av.	Very good	Very good	Very good	Very good	Very good	T. BROWNELL.
Cahir	Very good	Bad	Bad	Good	Good	Very good	Very good	Very good	E. J. ROGERS.
<i>Clare</i> —	-	-	-	-	-	-	-	-	-
Newm't-on-Fergus	Average	Bad	Bad	—	Average	Average	Average	Good	F. W. A. SCOTT.
Carrigoran	Good	Bad	Bad	Below av.	Good	Good	Good	Good	ALF. BARKER.
Dromoland	Very good	Below av.	Below av.	Below av.	Good	Very good	Good	Very good	JOHN CARTER.
Newm't-on-Fergus	Good	Bad	Bad	Average	Very good	Good	Average	Very good	D. LYNCH.

LEINSTER.									
<i>Meath</i> —									
County	Average	Average	Below av.	Average	Good	Good	Good	Very good	J. B. CLARK.*
Dunsany Castle	Good	Bad	Very good	Good	Very good	Good	Good	Very good	J. POW.
Kilken Castle	Good	Bad	Very good	Bad	Average	Very good	Average	Very good	P. MAHON.
Summer Hill	Good	Bad	Average	Bad	Average	Very good	Good	Very good	W. M. LAUDER.
<i>Dublin</i> —									
Kenure Pk., Rush	Good	Bad	Average	Bad	Average	Below av.	Below av.	Good	C. BRENNAN.
Cabinteely	Very good	Bad	Bad	Bad	Bad	Good	Good	Very good	W. USHER.
Vice-Regal Lodge,	Good	Below av.	Good	Below av.	Good	Average	Average	Very good	D. WATT.
Phoenix Park	Good	Bad	Good	Bad	Bad	Good	Average	V. G. PROSPER.	A. CAMPBELL.
St. Anne's, Clontarf	Good	Below av.	Bad	Below av.	Bad	Good	Good	Very good	S. DAVIES.
Blackrock	Very good	Bad	—	Bad	—	Good	Good	Very good	J. SHIVAS.
<i>Wicklow</i> —									
Shelton Abbey	Below av.	Bad	Good	Average	Good	Very good	Very good	Very good	J. SHIVAS.
<i>Wexford</i> —									
South County	Below av.	Bad	—	Bad	Good	Good	Average	Good	J. HAGAN.
Enniscorthy	Very good	Bad	Good	Bad	Average	Good	Good	Good	J. McLENNON.
<i>Kildare</i> —									
County	Below av.	Bad	Below av.	Bad	Below av.	Good	Very good	Very good	W. M. TYNDALL.*
Fruit Plots	Below av.	Bad	Below av.	Bad	Below av.	Good	Very good	Very good	P. R. FARRELLY.
Moore Abbey	Below av.	Bad	Bad	Bad	Below av.	Average	Good	Good	C. PILGRIM.
<i>Kilkenny</i> —									
County	Very good	Bad	Early bad,	Bad	Good	Good	Good	Good	T. REA.*
			late good						
Thomastown	Very good	Bad	Average	Below av.	Very good	Average	Average	Average	J. STARK.
Piltown	Good	Bad	—	Bad	Good	Good	Good	Good	J. DEARNALEY.
<i>Carlow</i> —									
Milford Gardens	Average	Bad	Bad	Below av.	Very good	Good	Good	Very good	J. McCORMICK.
<i>King's Co.</i> —									
Whole County	Below av.	Bad	Bad	Bad	Bad	Good	Below av.	Very good	E. CLARKE.*
Tullamore	Very good	Bad	Average	Average	Average	Very good	Good	Very good	W. M. ROBERTS.
<i>Westmeath</i> —									
Castlepollard	Good	Below av.	Morello g'd	Average	Good	Good	Average	Very good	G. BOGIE.
<i>Longford</i> —									
County	Very good	Bad	sweet nil,	Bad	Below av.	Average	Average	Very good	W. JOHNSTON.*
CONNAUGHT.									
<i>Galway</i> —									
Whole County	Good	Bad	Average	Bad	Very good	Good	Good	Very good	P. J. McNICOLAS.*
Ashford Cong	Good	Bad	—	Average	Good	Good	Good	Very good	P. D. REID.
Athlery	Average	Below av.	Good	Bad	Very good	Below av.	Below av.	Very good	H. DAVIDSON.
Mount Bellew	Average	Bad	—	Average	Good	Good	Good	Good	P. QUEALY.
<i>Sligo</i> —									
Whole County	Very good	Below av.	Average	Bad	Very good	Good	Good	Good	J. J. CURLEY.*
Lissadell	Very good	Below av.	Good	Below av.	Good	Below av.	Good	Very good	J. SANGSTER.
Collooney	Average	Average	Good	Average	Good	Very good	Very good	Good	H. COUSINS.
<i>Mayo</i> —									
Westport	Very good	Average	Bad	Bad	Very good	Very good	Very good	Very good	R. JOYCE.
<i>Roscommon</i> —									
Whole County	Below av.	Bad	Below av.	Very bad	Below av.	Below av.	Below av.	Good	E. H. BOWERS.*
Frenchpark Gdns.	Average	Below av.	Average	Average	Average	Average	Average	Average	T. ROGERS.
Boyle	Average	Bad	Good	Average	Good	Good	Good	—	MRS. SMITH



## The Month's Work.

### The Flower Garden.

By J. G. TONER, Horticultural Instructor, Co. Monaghan.

**W**HEN the glory of the pelargonium bloom is past, cuttings in more than sufficient numbers may be put in. Let medium growth be selected, and space and time will be saved if a number, say six, be dibbled in around the edge of four inch pots, using a firm, sandy compost. After the old plants have been cut back, and indeed for some time before, they should be kept on the dry side, and when the young growths are about half an inch long they should be turned out of their pots, the ball of soil considerably reduced, the stronger roots cut back, and the plants repotted in small pots, say fives or sixes. These plants, when shifted on during the season, will make large and fine specimens.

Azaleas, camellias, rhododendrons, and plants of a similar nature, if their growth has been made, should be stood in the open so that the new wood may be thoroughly ripened. A sunny position will suit them well, but there must be shelter from storms, and watering will require very careful attention. Here again the usefulness of plunging the pots is seen; when they are treated in this manner there is not the same danger of sudden drought, which in regard to plants of this class is very damaging, and often proves fatal.

Sow mignonette for winter flowering; the greatest success is perhaps attained when the seeds are sown in the pots in which the plants are intended to bloom, as they resent any little root disturbance. A really good compost would be—four-fifths loam, one-fifth mortar rubbish, leaf-mould and sand in equal proportions. This should be made very firm before sowing, and the pots filled only to one and a half inches of the rims, so as to allow for future top-dressings. Shade while seeds are germinating, and less watering will be required.

The potting and growing on of primulas, cinerarias, calceolarias, cyclamens, &c., will require much watchfulness and care. All of these will require slight shading, and cyclamens will be much benefited by being syringed or watered lightly overhead on the evenings of warm sunny days, of which the past month has not been very productive, to the great sorrow of the gardener.

Place zonal pelargoniums intended for winter blooming in a very sunny position in the open, attend to watering, and pick off all flower trusses as they are seen. These plants always flower more abundantly when grown in small pots, therefore those exceeding five or six inches in diameter should never be employed. Whatever extra food may be required later can be supplied by regular feeding.

Gloxinias, begonias, &c., now in flower will require to be shaded or the blooms will not last long; plenty of ventilation is also essential to their welfare. Early seedlings should by this month have grown into strong plants, many or all of which will flower; and how anxiously the grower will watch for his reward in the shape of good things. For the purpose of propagating these the leaves of gloxinias may be easily struck,

taking them off with an inch or two of leaf-stalk, and inserting them in small pots filled with a very light and sandy soil; bottom heat is desirable in this operation but not necessary. However, if there is a hot-bed in use for cucumbers or melons the pots may be plunged in it, and roots will be formed in a very short time. If cuttings can be obtained from begonias they may be treated in the same way, and will succeed: but please spare the water.

Layer carnations as soon as the grass, as the growths are termed, is strong enough to bear the knife (see illustrations and description in IRISH GARDENING, July, 1906, and June, 1908). Dahlia growths must be thinned if fine flowers are wanted, and even when they are required in quantity it will be well to limit in some degree the numbers of shoots. Trap earwigs, which do much damage by eating the young growing points and foliage, by placing small pots partially filled with dry moss on stakes, or pieces of bamboo cane will be found useful for the same purpose. Do not forget the tying of the branches as they advance in growth.



### The Fruit Garden.

By GEORGE DOOLAN, Instructor in Fruit Culture, Department of Agriculture.

**A**MERICAN GOOSEBERRY MILDEW. — This destructive blight infesting the gooseberry crop has appeared very early this season. It has proved a most infectious disease, and no efforts should be spared to check its progress. It is to be hoped, with the efforts the Department of Agriculture are using and the special Order dealing with this disease in force, that it will before long be effectually stamped out. The disease is easily recognised, being of a white, floury nature in its earliest stages of growth. In about a week or ten days it changes to a chocolate colour. The berries usually are first attacked, then it appears on the soft young tips of the growing shoots. Birds, insects, and animals carry the spores of the mildew from garden to garden, and doubtless it has often been carried on men's clothes. Owners of clean plantations should keep a sharp look out that the disease does not appear unawares. Prevention is better than cure, and if the bushes be sprayed a few times with sulphide of potassium, two ounces to three gallons of water, there is every possibility of the disease not infesting them. In case of a bad attack, burning the bushes is the surest and most economical remedy. Should the attack be a light one, pick off all infested berries, and cut off diseased branches, and burn them; spray immediately with above mixture. Spraying every ten days will be necessary where the mildew has been noticed.

Insect pests, caterpillars, and greenfly have been very prevalent this season, giving a lot of trouble to fruit growers. The sawfly caterpillar has been very active on gooseberries, two sprayings being necessary in some cases to stop his ravages. Remedies for these will be found in the April issue of IRISH GARDENING, page 60. American blight is already making its appearance on young apple trees, and no time should be lost in taking measure to check its progress. If allowed to spread, this pest does a lot of injury to young trees, and it is most difficult to eradicate. Its presence on young trees is indicated by the white, cottony substance covering its body. Infested parts of the trees should be painted with pure paraffin oil, using an old paint brush for the purpose.

**STRAWBERRIES.**—Where a supply of good, sturdy runners is required for making a fresh plantation, a start should be made as early as possible. Select the first runners from fruitful plants, soften a small patch of ground on which to place the runner. Some propa-



gators peg the runners to the ground, but a stone does equally well, as the runner roots quickly if the soil be fairly moist.

**GENERAL REMARKS.**—Wherever liquid manure is available use it on black currants or raspberries. The best time to put it on is after rain, but have it well diluted at other times. Keep the hoe at work constantly, especially under fruit bushes. Dig out all suckers growing at the base of plum, apple, or pear trees.

## The Vegetable Garden.

By WILLIAM TYNDALL, Instructor in Horticulture, Co. Kildare

**W**E are now at a time of the year when it is well to take stock of the various crops and note results, as in this month most of the crops will have been sown or planted. Yet ever in the vegetable garden something needs attention. Attend to the directions given last month and stake, thin or earth up all crops as they advance. Keep the ground clear of weeds and from the leaves and stems of cabbages turnips, potatoes, &c., as they are daily gathered. (For utilisation of this rubbish, see page 101.)

Considering that last year was unfavourable for the harvesting of seeds, they have germinated this season much better than might have been expected, and when failures occur it is generally due to insect pests or to sowing too early, or to unsuitability of ground.

**LEES.**—If large enough to transplant remove to deeply dug well-manured ground, and if a large quantity is required they can be planted in rows about fifteen inches apart and eight inches from plant to plant. When planting, put the dibbler deep in the ground, making a deep wide hole, put a plant in each hole and let a little soil drop down around the roots, but do not fill up the holes as the thickening stems of the plants will fill up the space. If the plants are only placed on a level with the ground there will be much less of blanched stems, unless the plants are earthed up like potatoes, and this should be done when the plants are growing, as then they blanch more easily.

**CABBAGE.**—To have cabbage fit to cut early in the spring ought to be the aim of all farmers and cottagers. It is one of the best of spring vegetables, yet one that often fails to come at the time through several causes. Bolting, sowing the seed too early or too late, delaying planting out till October, and sowing unsuitable varieties being a few of the reasons. The end of the first week of July in cold and late localities, and about the middle of the month in warm places, is not too soon to sow the first lot of seed of such varieties as Flower of Spring, Excelsior and Ellam's Early, making a second sowing about two weeks later. There should then be no want of good plants for putting out from the middle of September till the end of that month. Formerly the end of July was the time cabbage seed was generally sown, but since the introduction of the medium-sized early hearting varieties mentioned above this date has been found much too late by at least two weeks.

**TURNIPS.**—This month may be considered the best time for the sowing of turnips for autumn and winter use, as the plants from these sowings will be fit to pull in September and on till the end of the year. Orange Jelly and Black Stone are two of the best. The sowings should be made in two or three lots.

**SALADS.**—Continue to sow lettuce, radishes, spinach and endive on cool borders so that they may last in condition for use longer.

## Bee-keeping.

By T. MAGUIRE, The Orchard, Enniskillen.

**I**T is to be hoped that July will prove a month better for the bees than its predecessors, which have proved disappointing, though not quite so bad as last year, when the feeders were in constant requisition till the middle of July. There is yet time to take a good crop of honey: the clover is just in, and granted sufficient heat, all will be well.

Unless in districts where heather or blue-button is accessible to the bees it is useless to put on supers after the middle of the month except in the case of an extra strong stock which may be hanging out for want of room. With such a stock the best plan is to put a super *on top*; the bees will at least draw out the foundation, and provide bait sections for next year.

Queen rearing will now require attention. It is absolutely necessary to provide young queens if stocks are to be at their best next year. Last season was so bad that many stocks did not get re-queened, so it will be doubly necessary to have that matter looked after this year. Queens should be reared from the best stocks only. The average amateur will not have to resort to any artificial means to induce queen rearing. The best stock will be pretty sure to build queen cells (not "green cells," Mr. Printer, as you put in last month: cells are never "green," though printers sometimes are), which can be utilised in the various nuclei as they appear. In case the queen cells are not forthcoming, however, deprive a strong stock of its queen. In about four days give that stock a frame of eggs from the best queen, removing any cells that may be formed on its own combs. Any time from eight to fifteen days after the eggs are laid the cells, which will be built and sealed, can be removed and given to nuclei prepared for them. It is best to use spiral wire protectors for the cells, as the bees sometimes destroy them.

Some people will require to increase their stocks. The best method of increase is the natural one of swarming. The swarm should not be fitted up in a new position, as is generally done. It should be returned to the old stand, giving it fresh frames of foundation, and returning its own supers and the bees therein on top. The old brood combs should be divided up into nuclei, giving three or more combs, containing at least one queen cell, to each. Makeshift boxes can be rigged up for them in the absence of spare hives, and, if the hive allow of it, one of them can be accommodated at the back of the main stock. The others can be dotted round the apiary. A generous quantity of young bees should be shaken into each, as the old bees will all return to the main colony. They should be carefully attended to in the matter of feeding when necessary, and robbers must be specially guarded against. These nuclei will work up strong by the end of the season, and, if united, will make splendid stocks for wintering. The spare young queens left after wintering should be used, of course, to replace old ones elsewhere.

The natural swarm can be anticipated when queen cells are found building, and an artificial swarm made. This will save the bother of hiving the swarm and avoid the risk of its going off and being lost. Take out the required number of combs with queen cells for each nucleus, shake some more young bees into them, and remove to new positions, being careful to leave the old queen in the parent hive. The flying bees will go back to the old stand, but the young bees will remain to nurse the brood. The old combs, of course, are to be replaced in the parent hive with frames of foundation.



## Answers to Correspondents.

**RESISTANCE TO DISEASE IN POTATOES ("A. F. O.")**.—It is a difficult question to answer. Resistance is relative—not absolute—as no variety seems to be quite disease-proof. As it decreases with the age of the variety it would seem, therefore, to be dependent upon general negative vigour. For the same reason it follows that reproduction by seed will have a tendency to restore lost powers of resistance. The selection of "seed" is of some importance; northern grown seem to be the best, especially if raised on land not richly manured (nitrogenous manures especially are detrimental), and harvested before they are fully matured. It would seem that tubers rich in starch are less susceptible to rot, while richness in protein render them more susceptible. Again, red, rough-skinned varieties are said to be more resistant than thin-skinned, white varieties. As to stem and foliage, it is further believed that hard, woody stems and leaves that are relatively small, rough, and dark-coloured are more immune than those possessing opposite characters to these.

**HOUSE FLIES ("M. A. C.")**.—We are afraid we are unable to give you the kind of help you expect, but something certainly might be done if there was united systematic action in the matter of preventing the production of broods in the vicinity of dwelling-houses. We are aware that leafy branches of certain plants (the common elder, for example) are frequently used to keep flies off of living rooms, but the use of such specifics do not strike at the root of the evil. That house flies are irritating intruders is a small matter compared with the more serious fact that they are most mischievous spreaders of disease, especially those that are associated with intestinal disorders, such as summer diarrhoea. The truth is that the eggs are laid and the young broods hatched in animal excreta. If you stand and watch either a manure heap or isolated mass of excreta in warm weather, you will not fail to see the number of flies that alight, walk over the surface, and fly off again—fly off and perhaps enter a dwelling through open door or window, and if food is exposed straightway alight on it, run over it, and fly off again. The danger arises from the possibility of injurious intestinal germs in the excreta being transported to the food from the legs of the insect, and so when the food is eaten conveyed to the digestive tract of the feeder. There can be little doubt that much injury to health arises in this way. Of course human excreta is more dangerous in this respect than ordinary manure, hence the obvious duty of taking all needful precaution to use earth, or earth and a little lime, in open privies in rural districts. If it were practicable to cover all manurial matter in the vicinity of dwellings the summer plague of house flies would be very considerably reduced. From what we have said it will also be seen that when flies are abundant, food should be stored in dark places, or else covered with gauze or other suitable covering.

**GARDEN PEAS.**—"W. J. H." sends specimens of young peas, and draws attention to a "diseased" condition of the roots, asking for information as to the cause and what remedy to apply. The roots are not diseased, and

the cankerous-looking swellings are formed by friendly germs that enter the tissues from the soil and help the plant to secure nitrogenous food material. The more plentiful these "nodules," the more thrifty the plant. The roots of all leguminous plants show as a rule this peculiarity. The bacteria "fix" the atmospheric nitrogen, converting it into a suitable compound for the consumption of the crop, hence the well-known ability of all leguminous crops to thrive in soils comparatively poor in combined nitrogen.

**NAMES OF PLANTS ("J. C.")**.—*Olearia macrodonta*, the daisy tree of New Zealand, can be purchased from any of the nurserymen advertising in these pages. "H. P. B," junr.—(1) *Rhododendron ferrugineum*, from the European Alps; (2) *Campanula glomerata* var. *Dahurica*, the clustered harebell.

**SAGE.**—You should remove the flower stems as soon as the flowers fade. For winter use, cut the leafy stems, tie in bunches, and store in a dry, cool place. The plant is not so extensively used as in days gone by. Yet it still forms much relished seasoning herbs in many dishes, but especially strong meats like porks, goose, duck, &c. In the kitchen garden it forms very pleasing masses of colour when in flower. It may be raised from seed or from cuttings. It was introduced into these islands about four centuries ago. Its scientific name is *salvia*, a Latin word meaning to keep safe or healthy, referring to its medicinal properties. The common name of sage was given to it from its supposed power to make people wise by strengthening their memories. It belongs to the Labiate family. We cannot say if it would "pay" to grow it as a commercial crop in Ireland.

**IRISES ("Lady Amateur of Irises")**.—Your case is not exceptional, as we understand that this has been a bad flowering year. The bearded irises require an ordinary, well-drained garden soil, with full exposure to wind and sun. You must on no account feed them with farmyard or other rich manure, the only thing allowable being bone meal well mixed with the soil. They may be planted either by themselves (which is preferable perhaps) or in the border. They can stand drought. You should consult Mr. Moore's article on Irises in the September and October numbers of IRISH GARDENING of last year.

**PEACH LEAF-CURL ("Lurgan")**.—The foliage of your trees are suffering from an attack of the fungus (*Exoascus*) that causes the thickening and curling of the leaves. Almond is frequently so attacked. An illustrated article on the disease appeared in our August number of last year, and we here repeat the advice there given. The fungus attacks not only the leaves but also the young shoots, which become swollen and often twisted, while the internodes do not elongate normally, and it is in these that the fungus for the most part passes the winter, though its spores may also possibly lurk in cracks or crevices on the twigs, in the bud axes or between the bud scales. In order to get rid of the disease the main thing is to be persistent in the attack. Gather and burn all fallen leaves, so as to prevent the distribution of the spores. Prune back diseased twigs; the fungus in them works forwards towards the growing points and not backwards. Spray with half-strength Bordeaux mixture in spring just when the leaf-buds are beginning to expand. If this is done with perseverance for a season or two the result should be a satisfactory one.

**PEACH-TREE DROPPING FRUIT ("Dublin.")**.—The trouble appears to be connected with a failure to stone properly. The cause is most likely due to a lack of lime in the soil. We are afraid it is too late now to prevent the mischief, but watering with lime-water (made by dissolving freshly burnt lime in water) may be tried. In the late Autumn or in Winter fork into the surface-soil some lime or lime rubble. This may save the crop next year.



**FURNITURE**  
CARPETS  
CURTAINS  
LINOLEUMS  
BEDSTEADS, &c.  
AT  
Lowest CASH Prices  
OR BY  
Gradual Payments.  
TERMS and PRICE  
LISTS FREE.

Dining and Drawing Room Suites from £610s. to £1810s.

**J. H. WEBB & CO., LTD.,**  
CORNMARKET, DUBLIN.

FOR  
**Flower Pots**  
AND  
**Horticultural Pottery**

WRITE  
**G. J. OWENS,**  
Brick and Pottery Works,  
ENNISCORTHY.  
Agents for Dublin and District:—Messrs. E. BROWETT & SONS,  
7 Upper George's Street, KINCSTOWN.

**EVERY WEED DESTROYED**  
ON  
GARDEN PATHS, BY CARRIAGE DRIVES, &c.  
**"CLIMAX" WEED KILLER.**  
ONE APPLICATION IS SUFFICIENT FOR 12 MONTHS. IT KILLS THE WEEDS ROOT AND BRANCH.  
Write for our Catalogue of Garden Helps.  
BOUNDARY CHEMICAL CO. LTD. CRANMER ST. LIVERPOOL

No. 1 tin, to dress 100 sq. yards, 2s. 3d. post free. No. 2 tin, to dress 400 sq. yards, 7s.

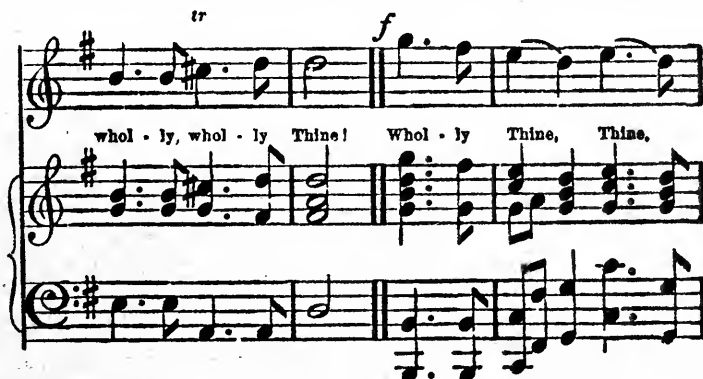
**BEE-KEEPERS.**

**Bee-hives** and all Appliances  
of the most modern Pattern  
supplied. Write for list.

**Irish Producers, Ltd.,**  
105 Capel Street, Dublin.

**MUSIC PRINTING A Speciality**

Estimates  
Free



Superior  
Work

**BOOK-BINDING**

"IRISH GARDENING" can be bound at this Office in handsome  
Cloth Case, gilt. Price, including postage, 3s. 6d.

Office—53 UPPER SACKVILLE STREET, DUBLIN

# *Power's Tested Seeds*

AS SUPPLIED TO  
HIS MAJESTY THE KING

---

PURITY AND GERMINATION GUARANTEED.

---

*Special Quotations on Application.*

---

## **WM. POWER & Co.,**

Seed Merchants and Nurserymen,

**WATERFORD.**

AUGUST 1908.

TWOPENCE.

# Irish Gardening

## Contents

	PAGE
Bog Deal . . . . .	113
Notes from a Rectory Garden . . . . .	115
Scab on Apple Twigs . . . . .	116
Royal Horticultural Society of Ireland . . . . .	117
Farmyard Manure . . . . .	118
School Gardening . . . . .	119
A Warning to Potato Growers . . . . .	120
Roses . . . . .	121
Sweet Peas at the Shows . . . . .	122
Current Topics . . . . .	123

	PAGE
The Herbaceous Border . . . . .	124
Flax . . . . .	124
Gaillardias . . . . .	125
The Snake's Head Fritillary . . . . .	125
Irish Horticultural Societies . . . . .	126
Horticultural Shows . . . . .	126
The Reader . . . . .	128
Bee-keeping . . . . .	129
The Month's Work . . . . .	130
Answers to Correspondents . . . . .	132

### DUBLIN

PRINTED AND PUBLISHED BY JOHN FALCONER, 55 UPPER SACKVILLE STREET.  
OBTAINABLE AT RAILWAY BOOKSTALLS AND FROM NEWSAGENTS THROUGHOUT IRELAND.  
WHOLESALE AGENTS: MESSRS. EASON & SON, DUBLIN & BELFAST;  
GEORGE VICKERS, ANGEL COURT, STRAND, LONDON.



## WINDOW GLASS.

Polished Plate for Shop Windows.

Ornamental Glass of all Descriptions.

Horticultural Glass at Lowest Rates.

## DEATH TO THE WEEDS.

HOYTE'S WEED KILLER.

*Strongly Recommended for the Destruction of Weeds, &c.*

Price, 2s. per gallon; 5 gallons, 1s. 6d. per gallon;  
10 gallons, 1s. 3d. per gallon; Original 40-gallon casks,  
1s. per gallon.

HOYTE & SON, The City of Dublin Drug Hall,  
17 LOWER SACKVILLE STREET, DUBLIN.

## BECKER BROS.

PRICES—  
2/5, 2/2, 2/-, 1/10, 1/8, 1/6, 1/4, 1/2.  
**TEAS.**  
PRICES—  
2/5, 2/2, 2/-, 1/10, 1/8, 1/6, 1/4, 1/2.

8 Sth. Gt. George's St.  
AND 17 Nth. Earl St. **Dublin.**

All Original Illustration Blocks in  
"Irish Gardening" are executed by

... THE ...

## Irish Photo-Engraving Co.



Samples and Prices  
for every kind of  
Illustrative Work  
upon application.

Oriel House, Westland Row, DUBLIN.

## FOR Flower Pots AND Horticultural Pottery

WRITE

**G. J. OWENS,**  
Brick and Pottery Works,  
ENNISCORTHY.

Agents for Dublin and District:—Messrs. E. BROWETT & SONS,  
7 Upper George's Street, KINGSTOWN.

"Has stood the test of a quarter of a  
century."

## THOMSON'S Vine, Plant, and Vegetable MANURE.

Only Medal,  
Edinburgh, 1886.



Gold Medal,  
Edinburgh, 1891.

The result of long Practical Experience. Unrivalled  
for all Purposes. This valuable Manure is  
yearly growing in public favour.

ALSO

**THOMSON'S SPECIAL  
CHRYSANTHEMUM MANURE.**

Perfect Plant Foods.  
SOLD BY ALL SEEDSMEN.

Price Lists and Testimonials on application to  
SOLE MAKERS—

**WM. THOMSON & SONS, LTD.,**  
Tweed Vineyard,  
CLOVENFORDS, GALASHIELS, N.B.

## TAIT'S Tested Garden Seeds FOR AUTUMN SOWING—POST FREE.

### CABBAGE SEED.

	per pkt.	3d.	per oz.	1s.
Tait's Early Dublin Market	...	3d.	...	8d.
Tait's Improved Nonpareil	...	3d.	...	6d.
Cattell's Early Reliance	...	3d.	...	6d.
Daniel's Defiance	...	3d.	...	6d.
Early Dwarf York	...	3d.	...	6d.
Ellam's Dwarf Early Spring	...	3d.	...	6d.
Early Offenham	...	3d.	...	6d.
Enfield Market	...	3d.	...	6d.
Large York	...	3d.	...	4d.
Drumhead	...	3d.	...	4d.
Flat Dutch	...	3d.	...	4d.

### ONION SEED.

	per pkt.	3d.	per oz.	8d.
Tripoli, Giant Rocca	...	3d.	...	6d.
" Large Flat Red	...	3d.	...	6d.
" Large Globe	...	3d.	...	6d.
" Red Italian Flat	...	3d.	...	10d.
" Mammoth Flat White	...	3d.	...	10d.

For Spinage, Turnip, Lettuce, Cauliflower, Parsley,  
&c., see TAIT'S Garden List, post free.

**W. TAIT & CO.,**  
SEEDSMEN,

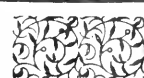
119 and 120 Capel Street, DUBLIN.



# IRISH GARDENING



A Monthly Educational Journal devoted to  
the Advancement of Horticulture in Ireland



## Bog Deal.

By ARCHIBALD E. MOERAN, Portumna.

BOGS and their mystery and history have always had a great fascination for me, and I have often wondered why I could never find any book that would explain the story of those far-stretching inland seas of brown grass and purple heather that hold such curious relics of past people and things

nowadays, they are to be found wherever there is a covering of peat, and down again on the western coast line to the very high water mark. I have even seen their roots on a calm day deep down under the Atlantic where it has eaten its way into parts of the Dingle peninsula.

The destruction of our great pine woods was



Photo by

View in Crumkill Bog, Ballymena,

(Dr. G. H. Pethybridge.

With Stumps of *Pinus Sylvestris* in situation.

in their sombre depths. Quaint little human habitations, before whose doors young barbarians contentedly made mud pies — how many centuries ago? Crude utensils and canoes, and weapons, the very arrow intact that was shot by whose hand? and at what mark? how long ago? Stone causeways and wooden “corduroy” roads that were never “on the county.” The bones of men and women here and there, and here and there the bones of great beasts, but everywhere the bones of the great forests of the past. Down in the lowland bogs countless thousands of stumps of oak and yew and of the old Irish pine, the “bog deal” as it is called; and up on the hill-sides miles upon miles of pure bog deal. Up on bleak, exposed heights, where few foresters would venture to plant

inevitable unless some strong hand could have been stretched out to save them. Every European country has gone through this phase in its history, as they in turn emerged from the period in which woods were regarded as fit only to be burned as harmful encumbrances of the ground, to the time when the remnants of these woods began to have a commercial value, and were cut and sold, until people began to be alarmed for their future supplies of wood, when, sooner or later, the Government of that country stepped in, and in many cases has succeeded in building up out of the wreck they took in hand the highly profitable forests we see and admire abroad.

Unfortunately in Ireland no one interfered, and the result has been the most striking example I know of the complete subversion of Nature's proposals by man's disposals. One



would have supposed that here and there a wood might escape, or that at any rate the unsaleable trees would be left standing. It seems almost incredible, to those who have not studied the laws of forestry, that so utterly and completely have these great forests been annihilated that, so far as I am aware, there is not a mountain side in all Ireland on which one single tree of our original Irish pine grows to-day.

Carefully preserved in his demesne at Doneraile Lord Castletown has some grand trees for which he claims an unstained lineage, and these, so far as I know, are the only trees in Ireland for which this claim is made. And what splendid forests they were, that gave our country her name of "the Island of Woods!" Away down on the plains and in the valleys there was plenty of open land, and here were the towns and settlements, and here, also, was the restlessness and strife and endless bloodshed of early Irish history; but up on the hill-sides stood the great silent forests, with only the highest and most exposed mountain peaks jutting up through the all-pervading pine tops, and among those pine trees, in contrast to the turmoil below, that complete and utter solitude and calm that is only to be found in primeval forests. The "Rest" of which the late Percy Somers Payne wrote :—

"Down where the broad Zambesi river  
Glides away into some shadowy lagoon  
Lies the antelope, and hears the leaflets quiver,  
Shaken by the sultry breath of noon;  
Hears the sluggish water ripple in its flowing,  
Feels the atmosphere with fragrance all oppress,  
Dreams his dreams, and the sweetest is the knowing  
That above him, and around him, there is rest."

But to return to our bog deal. The Irish pine, as I have called it, is botanically identical with *Pinus sylvestris*, the "Scots" or "Scotch" pine or fir, as it is commonly called, a tree whose habitat ranges from Western Ireland all across Northern Europe and away out into vague Siberia, and the timber of which, shipped to us from North Russian ports as "red deal," is unsurpassed for building purposes, and commands a very high and fast increasing price. "Scotch" fir is, of course, a misnomer; it ought to be "Scots" fir, and Ireland, we all know, was called "the land of the Scots" before the name Scotland was ever heard of. All the same, I think Professor Fisher is right in insisting on calling this tree the "common fir."

How the bog deal got into the bottom of the bogs or how the bogs got on to the top of the bog deal is a puzzle to most people. The local "scholars" will tell you that the decaying branches and leaves of the forest piled up into bog in the course of unknown centuries, but they are rather put to it to explain twenty feet

of turf over the stumps of the former forest, and especially when those stumps, as is often the case, are found all wind-blown, and therefore an unproductive factor, at the bottom.

The truth, as I make it, is, that so long as forests exist on any land you will have a deposit of vegetable humus, but you will never have bog there. If, however, the forest is burned or blown down, or even cut down, conditions are frequently set up (depending chiefly on the lack of drainage) that cause bog to grow.

It is for this reason that we find the roots of the trees, which were buried in the ground at the time of the clearing of the forest, so sound and fresh that the pink inside bark looks and smells as though from a growing tree, yet the trunk and branches which were exposed to the atmosphere have utterly rotted away before the peat had time to cover and preserve them. Those trunks that we do find, rare in comparison to the number of stumps, probably fell into soft ground, and were thus submerged and protected. We often see several strata of tree stumps in the face of a bog with a layer of peat between each of them.

Here, after the first denudation, the bog began to grow, covering up the first set of stumps. Then little seedling pines crept out over it from some wood near by, and as they thrived they dried the bog, but they in their turn were swept away, and again the bog accumulated moisture and grew, till again the brave little trees got a foothold on it—and so on.

Some of the logs of bog deal that are dug out are very fine trees (as are the great bog oaks), and the timber in them, though stained to dull brown by the bog acids, is as sound as the day they fell.

The oaks all split to pieces as they dry out, so that it is hard even to get pieces big enough for the carved photograph frames, and pigs of commerce, many of which never saw the inside of a bog, and, I am afraid, are not so black as they are painted. The resinous bog deal, however, if it splits at all, only does so lengthways, and first rate boards can be cut from it. As a rule it has been slow grown, much slower than our modern trees, presumably owing to dense crowding. I have counted 220 annual rings on a log squaring only 14 inches. Such trees would equal in quality the very highest-priced red deal that we import, and the value of these woods, if they could have been preserved under judicious treatment, would run into so many hundreds of millions of pounds that I do not like to think of what we have lost. Fortunately this is not a matter for recriminations. The mistake, whose ever it was, is as old as the bog deal itself, and the authors of it are as dead and buried; but it is up to us now, as our friends across the water say, to see if we can reproduce some, at

any rate, of these once-flourishing forests. Not on the deep lowland bogs—on these for several reasons planting could not be undertaken—but on the wide hill-sides and moorlands, under the worthless sedge and heather of which lie millions of tough-rooted pledges that where trees once throve they will do so again.

## ✻ ✻ ✻

# Notes from a Rectory Garden.

By the Rev. Canon HAYES, M.A., Raheny.

FOR some years past I have been making observations in this garden as to the climatic conditions under which some of our plants exist, with results which I have not seen noticed elsewhere.

Rather more than thirty years ago a small specimen of *Cordyline Australis* was planted on the lawn, and ten years later, a few yards off, was placed a Fortune's Palm (*Chamaeops Fortunei*). They have had no covering all these years, and severe frosts have not hurt them, nor have they suffered any injury from winds. In Glasnevin, Bath, and other gardens I have noticed similar specimens, but they were much the worse of the wear.

My experience suggests that such things as these are immune from either frost or cutting wind separately, but that a combined attack in any winter may be fatal. It so happens (it was not by design) that a sort of serpentine herbaceous rock border encircles the lawn to the windward; it is scarcely more than four feet high, but it stands between the prevalent east wind and the lawn shrubs, and makes, I submit, a very material difference in the climate to leeward.

This may seem strange and, to some of your readers, unsatisfactory. But, I would ask, have they ever watched cattle on a bitterly stormy day standing on the very edge of a cliff, every one of them with their backs to the wind? One would say they had chosen the most exposed spot on the field for shelter, but their instinct or experience had evidently led them to know better, as anyone on the spot might have proved by tearing up a letter and throwing the fragments over the cliff: it would be found that the papers were carried, not back amongst the cattle, but right away upwards, where the wind itself was being dissipated and its strength scattered, to the evident comfort of the beasts.

And my contention is that we gardeners should emulate the dumb cattle in their intelligent familiarity with the simple facts which nature teaches those who will learn.

Under such apparently slight protection, cordylines will thrive in most districts, with

this proviso, that during the days of snow and frost the leading fronds are tied up with bast; this will prevent the snow being congealed and thus hurting the tender growth at the centre.

But I am convinced there is much more than this to be learnt from a rock border—I have described ours as a bank raised three or four feet higher at the back than in the front, interrupted irregularly with boulders, or limestone slabs deposited as though they were lying in their own quarry. I have discovered that its advantages are not far to seek; one of these is the variety of aspects afforded. One has known plants to dwindle and die if placed on one side of a rock, while they will thrive on the other side. A look-out north suits them, or south enervates, as the case may be.

Some of these experiences are sufficiently obvious; and a watchful observer of Nature's methods may often discover like results on the mountain side or on the river banks.

The rock border has, however, reserved for me one of those surprises for which I was unprepared.

Some six or seven years ago, wishing to extend the flowering season on the border for some weeks after the late tulips had disappeared, I ventured to plant some roses—Teas and Hybrids—each right in front of a boulder—made no addition to the ordinary soil such as it was, and just left the rose trees to take their chance with all the other roots and miscellaneous occupants of the ground. Since then they have had no dung of any sort, nor liquid manure; no more watering has been possible than the rain could give, and yet no other roses in the garden can compare with them in vigour and productiveness.

They need each year extra pruning to keep them within bounds. I submit that the secret may be discovered in the fact that these roses have stretched their roots far back under the great stones behind them, where they have found a congenial space between rock and earth, found an equable temperature, a firm hold where the roots may expand, not too moist and not too dry; impervious to sun and frost and wind—the very environment in fact with which nature herself provides her wild roses in the hedgerow or on the rocky headland.



**SWEET PEA TRIALS.**—On the 10th and 11th days of last month the floral committee and members of the National Sweet Pea Society inspected the results of the official variety trials carried on at Reading, under the superintendence of Mr. Charles Foster, and of the trials made by Messrs. Hurst and Dobbie in Essex. Medals and certificates were awarded to such of the new varieties as in the opinion of the committee merited distinction.

## Scab on Apple Twigs.

By GEORGE H. PETHYBRIDGE, Ph.D., B.Sc.

**N**EXT perhaps to canker, the scab or spot disease of apples is one of the most troublesome pests with which the grower has to contend in this country. The appearance

of affected fruits is, unfortunately, too familiar to require a detailed description here, especially since an illustrated account of the disease was given in IRISH GARDENING for February, 1907, p. 27.

The fungus which causes the trouble (*Fusicladium dendriticum*) not only gives rise to the spots, cracks, malformation, &c., of the fruits, but is also found on the leaves where it produces dark, more or less velvety, patches which of course affect adversely the normal work of the green leaf—viz., food manufacture. At these spots the conidia or spores, by which the fungus spreads, are produced in large numbers. In addition to these conidia, however, the fungus has a second form of fructification—a more complex one—

which may be found on the dead tissues, such as fallen leaves,

lished, and the *Venturia* form seems to be comparatively rare. Nevertheless the scab is ever with us, and the question arises as to whether there is any other method by which the fungus can remain alive over the winter. It has been suggested that it hibernates in the form of mycelium on the fallen fruits, and this may be so; but from a case which has recently come before my notice I am much more inclined to think that hibernation occurs *on the twigs*. Most of the text-books state that the fungus may occur on the twigs as well as on the leaves and fruit, but no special stress is laid on the point. Dr. Aderhold, indeed, says that it is very seldom seen on apple *twigs*, although the closely allied pear-scab is common enough on the twigs of certain varieties of pears.

The accompanying illustration is a photograph, enlarged about twice the natural size, of an apple twig which is badly attacked by the fungus. The scabby nature of the bark is very well shown, and, owing to the growth of the fungus within and beneath it, portions of it become from time to time detached and cast off. In a comparatively short time the smaller twigs and spurs become completely killed, and I have lately seen many such dead twigs on apple trees, particularly on the variety "Gladstone." On examining sections of the bark, under the microscope, the fungus is seen in the form of dense masses of mycelium closely resembling the resting stages of certain fungi known as "Sclerotia." From these, large numbers of the characteristic conidia were being produced this spring just at a time when the foliage was developing and the flowers opening. Without doubt such twigs are a rich source of infection for the coming fruit crop. I am inclined to doubt whether spraying would kill these mycelial cushions, so thick are some of them, and so deeply embedded in, and well protected by, the dead portions of the bark. Such affected twigs should be carefully searched for where apple scab is troublesome, and when found they should be cut off and burned. By this means the risk of continuing the disease from season to season should be considerably diminished, since it seems likely that the fungus hibernates largely in this way *on the twigs* rather than as mycelium on fallen fruits, or as an ascus fructification on dead tissues.



"HIBERNIA," writing in the *Gardeners' Magazine*, recommends the use of the male fern (*Lastria Felix-mas*) for the indoor decoration of fire-places and other dark recesses in rooms. The plants may be lifted in June, and potted firmly in a soil made of half leaf-mould and half loam. After keeping in a shady position for a couple of days the plants may be brought indoors. They must be well supplied with water. We have ourselves used the male fern for the purpose suggested, and can recommend it as a most effective decoration. They may be replanted in open ground at end of season.



Twig of Apple (Lord Suffield)  
Badly attacked with Scab (twice  
natural size).

&c., in the spring. These are minute, pear-shaped structures, each opening by a pore, and containing a number of small bags of spores. In this form the above fungus, known now as *Venturia inequalis*, is able to pass unharmed through the rigours of winter, and these fructifications therefore serve the purpose of carrying it over from one season to the next.

It is, however, only within comparatively recent years that the connection between the *Venturia* and *Fusicladium* forms has been estab-

## Royal Horticultural Society of Ireland.

AT the council meeting, July 9th, held at the society's offices, 5 Molesworth Street, Dublin, twenty-four species and varieties of hardy flowers were, by the courtesy of Mr. T. Smith, of Newry, arranged for inspection. That which, perhaps, attracted most attention, were sprays of the singularly beautiful *Andromeda speciosa* (see illustration), with large, clear, waxy-white bells. This is a delightful evergreen shrub, indigenous to Carolina; and although scarcely a possible plant for every garden in Ireland, it will doubtless do as well in many of the more favoured localities as it appears to do at Newry. Like all the family, it is a peat-loving subject, and partial to moisture. Where rhododendrons thrive this andromeda should flourish.

Another North American shrub sent from Newry, wholly distinct but equally beautiful, was *Azalea viscosa* ("the Sticky Azalea"), with typical clusters of small, white blooms. Although this is a species capable of making a good-sized shrub, its generally refined habits suggests a sheltered, moist nook of the rockery for planting in peat. Two Escallonias, *E. Langleyensis* and *E. Phillipiana*, being amongst the hardiest of hardy flowering shrubs, should be seen in every shrubbery, provided justice is done to them in the way of root-room and elbow-room; for too many so-called shrubberies are mere scrubberies in which good things have to struggle for existence amongst tree-roots and space-absorbing laurels. Both of these escallonias are wonderfully floriferous—the hybrid *Langleyensis* being clustered with rosy-carmine blossoms, *E. Phillipiana*, introduced from Valdivia in 1873, being decked with more thinly-disposed, small, white, sweet-scented flowers. Amongst decorative roses were such species as *Moschata grandiflora* and *M. floribunda*, a singular bi-coloured moss rose, *Cécile panache*, and the very distinct *Rosa rubrifolia* in its best form (there are several varieties of this South European native), which is very telling in its peculiar rich purple-red stems and foliage, reminding one of the purple plum in tone.

Hardy and herbaceous plants were represented by the North American *Gillenia stipulacea*, a distinct plant for the border, with small pink and white blooms set on slender stems two feet high; *Achillea aegyptiaca*, with typical heads of soft sulphur-coloured flowers; *Achillea alpina*, with corymbs of pure white single flowers, a charming plant from Siberia; *Brodiaea coccinea*, a bulbous plant with scarlet and green, globose-tubular

blossoms, very showy; *Iris laevigata gracilis*, a strong grower with large flowers of rich purple-blue, and a good spray of the old Swiss sea-holly, *Eryngium alpinum*. Mention must also be made of *Adenophora liliiflora*, a campanula-like plant with blue flowers, and *Spiraea aruncus Kneiffi*, the latter with flowers of the Goatsbeard type, but with foliage so much vivisectioned, if one may use the term, as to appear but little more than threads. Our list of the Newry contribution must conclude with *Lonicera ledebouri*, a good-looking deciduous shrub, indigenous to California, with reddish flowers produced from the axils of the leaves; *Ptelea trifoliata*, the so-called hop tree of North America, smothered in its greenish-white inflorescence, whilst it is worth noting that *Dielytra spectabilis*, killed to the



Photo. by]

*Andromeda Speciosa.*

[T. Price.

From a Specimen sent to the R. H. S. of Ireland by Mr. T. Smith, of Daisy Hill Nurseries.

ground at Newry by frost at the end of April, had again produced good spikes, of which samples were sent.

A vote of thanks by the council was accorded to Mr. Smith for his interesting exhibit.

EDWARD KNOWLDIN, F.R.H.S.



HORTICULTURAL EDUCATION ASSOCIATION CONFERENCE.—The second annual conference of this association was held at Ridgmont and Bedford on the 17th and 18th of July. Visits were made to the Duke of Bedford's experimental farm and to the nurseries of Messrs. Laxton. A paper on the illustrations of horticultural lectures was read by Mr. J. C. Newsham. The Irish Horticultural Instructors' Association might well hold an annual conference on educational subjects on the same lines as the English association.

"It's a poor business looking at the sun with a cloudy ace."—"Lovey Mary."

## Farmyard Manure.

By M. J. JAMISON, Associate of the Royal College of Science for Ireland.



WELL made farmyard manure constitutes the backbone of intensive cropping. By "well made" is meant (1) where the farm animals are well fed according to the uses for which they are kept, (2) where the manures from the various animals are mixed together to render the whole uniform, (3) where the greatest care is taken to prevent undue heating and also loss by drainage from the heap. When store cattle and cows are fed on turnips and straw the manure produced from a ton of this feed, allowing for storage under average circumstances, may be valued at three shillings and ninepence. If a fair allowance of decorticated cake is added, the value of the manure from a ton of the mixture fed will be eight shillings and sevenpence. The best manure is that obtained from fattening animals and working horses. Young stock and milk cows give the least valuable manure. Hence the necessity for mixing these various manures, so as to get uniformity in the mass. Much heating causes loss of ammonia, the most valuable constituent of the manure. Loose heaps and those containing much straw, also the manures from fattening animals and horses, have a great tendency to heat. The greater part of the nitrogen and potash, voided by animals, passes out in the urine. These valuable constituents, being more or less soluble, are easily washed away should much rain-water get at the heap, or if the heap is placed on sloping ground and not surrounded by some absorbent material. For these reasons the heap should be kept compact, free from the water off eaves and yard, occupy the smallest space compatible with its cubical contents, and be surrounded where possible by loamy earth to absorb the liquid manure and volatile ammonia. Manure heaps are often found in hollow parts of the yard. Waterlogging decreases the organic matter of the manure, thus decreasing its humifying powers. Waterlogged manure is a breeding ground for those forms of bacterial life not beneficial in farming. The best method of preserving farmyard manure is to have it well trampled under the animals producing it, or to wheel the liquid and solid manure into a shed, where it can be trampled firm by stock. The loss of nitrogen under such cases is 13 per cent., but if kept in heaps in the open, even under the best conditions, the loss approaches 40 per cent. The manure is kept firm and moist with no oxidation, unless around the walls, if rough and openly built. The carbonic

acid gas produced in decomposition, also that from the animals, tends to convert the volatile ammonium carbonate into an acid, and therefore stable, carbonate of ammonia. This manure, when carted to the drills in spring time, is placed high, dry, well aerated, and in the best position for nitrification. No waste of nitrates from washing out can take place, nor denitrification of the nitrates formed, or of those added in the form of artificial manures. If we place dung, wet soil, and nitrate of soda in a flask, denitrification of the nitrate sets in, so that much loss occurs. Hence the manuring of wet soils under horse cultivation is attended by waste. Ploughing in of dung in our wet climate tends to keep the land wet in winter, delays spring operations, and is wasteful of the manure, as it must be stored during the previous summer to enable the stubble land to be ploughed in time. During summer nitrification goes on rapidly in manure heaps, and the nitrates produced will be washed out by heavy rains or denitrified when applied in winter. The escape of ammonia from cow-droppings on grass land can easily be demonstrated where moulds are growing on the surface. In intensive cultivation, where crops are grown in quick succession and where the dung cannot be trampled under cattle, the manure should be carted to the fields and mixed with one-fourth of its weight of loamy soil, and one-twelfth of the total weight of cold, dry carbonate of lime incorporated with the mass. This will produce a well-decomposed manure with much quickly available plant food. In considering poor hill-side soils, farmyard manure, besides supplying plant food, enables them to absorb and retain moisture, keeps them more open, renders them alkaline, and supplies food for those useful organisms, soil bacteria, on whose relative numbers true soil-fertility depends. Artificial manures may stimulate crops, but have the opposite effects to those mentioned. Where cow-droppings have decayed on poor grass lands many millions more bacteria are found per cubic centimeter than where no droppings are. But the most beneficial use of farmyard manure is that in combination with carbonate of lime. Here are the best conditions for the nitrifying organisms to work. Nitrates are readily formed from the dung and built up as nitrate of lime. The conditions are also suitable for those organisms which can build up the nitrogen of the air in their bodies. In no other way can one account for the excellent crops produced on poor hill-sides by the use of a moderate amount of dung and carbonate of lime, with a dressing of phosphates and potash once in the rotation, otherwise than by the action of these organisms developing in the humus, and aided by the carbonate of lime, producing nitrates in com-

bination with lime or building up nitrogenous compounds in their bodies, to be used up by the growing crop when these in their turn decompose. The crops grown under such conditions have a greenness similar to that produced by nitrate of soda, but of a more lasting character. Farmyard manure is a slow-acting manure, and its nitrogenous compounds give results for many years after its application. Being rather a one-sided manure it requires to be supplemented by artificials. A ton of the manure containing 15lbs. nitrogen, 5lbs. phosphoric acid, and 7lbs. potash is not comparable in analysis with any of the mixtures recommended for the full growth of crops.

The liquid manure, consisting chiefly of the waste of the bodies of animals, is the most valuable part of the whole. It is very often allowed to run to loss. In its fresh state it is not good for plants, more so if applied when there is active transpiration and growth. It acts as a plant food much better after a ripening process. So far this ripening process is attended by waste of ammonia in a carbonate form. The tanks are a hatchery for those organisms causing this loss, and whose work is only retarded by the amount of the products of decomposition formed. These products being volatile there is not much check. It is a useful manure for the small farmer and gardener, but does not give results comparable to those obtained from the use of a watery mixture of artificial manures in producing rapid growths. Up to the present no profitable way of storing it alone has been found.

In conclusion, farmyard manure should be considered as one of the crops of the farm, and its quality should be maintained rather than its bulk. It is in many respects the most important crop of all, and this is especially so in the light of intensive farming, where it should be used as the basis of manuring, and its deficiency for the growth of the various crops made up by artificial manures. The yield and quality of the crops produced are dependent on the availability of the constituents necessary to their growth as well as on the physical condition of soil required by each. As the better quality of crops enhances the value of the product, the aim should always be to excel in quality. The more concentrated the plant food in a manure is, so much the less is the cost in cartage and spreading. Hence the quality of farmyard manure should be maintained by not allowing losses from rains and undue fermentations, as well as not using an abnormal quantity of straw as litter.



"I know a bank where the wild thyme blows,  
Where oxslips and the nodding violet grows,  
Quite over-canopied with luscious woodbine,  
With sweet musk-roses and with eglantine."

—*A Midsummer Night's Dream.*



## School Gardening.

By L. J. HUMPHREY, Special Instructor in School Gardening under the Department of Agriculture and Technical Instruction for Ireland.

**SHOWS AND PRIZES.**—The work of the teacher of School Gardening is not, as a rule, made more easy by the promise of prizes to the best pupil or even to the best plot. After all, it is easy to get the best boys to do their work well; the problem is to get the whole class to work in such a way that the school garden is a credit to the teacher and the school. Prizes awarded to individual pupils are apt to engender a rivalry which will render useless a great deal of what the teacher might say as to the advantages of co-operation. A better plan is to award a prize to the school having the best garden class in the district. A scheme could be arranged by which, each year, a shield or cup would be awarded to the school securing first place in the competition. It would be necessary to make the award on the result of an examination (largely practical) of the pupils as well as on the condition of the garden itself. For this latter purpose two visits at least should be paid to each garden by the judge in order that the whole work of the class might be taken into account. These visits and examinations would guard against the neglect of either the teaching for the appearance of the garden or the garden for the teaching, and would result in the school which had the best claim to it—i.e., the school in which the scholars had a good knowledge of gardening and in connection with which the garden was well cultivated—securing the award. It is generally agreed that the aim of all school garden work is to obtain cultural dexterity on the part of the scholars, combined with a knowledge of the principles on which plant cultivation is based. Such a scheme could hardly fail to very largely increase the interest of both teachers and scholars in their work.

Another plan which might be adopted is that of having a School Garden Produce Show, to which all the school gardens in the district send produce for competition, prizes being awarded to the most successful. This is an excellent plan, but where it has been adopted care has been taken to see that the vegetables, flowers, &c., have not been well cultivated at the expense of the teaching. A provision should be attached to the rules for all such shows that no school would be allowed to compete unless the pupils had obtained a good report from an inspector who would examine the classes to discover what knowledge the children possessed. School gardens are too frequently compared and judged by their appearance and by the quality of their produce when the real test should be the comparative intelligence and interest of the pupils. A well cultivated garden, containing good vegetables and flowers, and which is also neatly kept, is an indication that the teaching has been well done, but proof must be looked for much more deeply.

August is often a holiday month in the school gardens, but wherever possible cabbage and other crops for spring should be sown. Strawberry plantations should be prepared and any pruning of fruit trees attended to.

Annuals for spring flowering should be sown, and cuttings of pansies and violas should be made.

## A Warning to Potato Growers.

**A** MOST destructive disease affecting potatoes known as the "black scab," or warty disease, has become epidemic in certain parts of Great Britain, and as it has not yet been reported as occurring in Ireland,



FIG. 1.—Tuber showing the warty outgrowth produced as a result of the attack of the principal eye at the rose end.

potato growers will do well to keep a sharp look out for it, with the view of destroying all tubers that show the least sign of the disease, and so, if possible, check its spread in this country. It is most destructive in its effects,

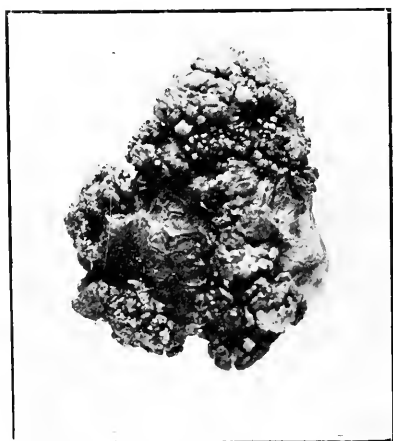


FIG. 2.—Tuber showing many eyes attacked, and the warty outgrowths spreading and coalescing.

and almost impossible to eradicate once it becomes established.

The Department of Agriculture has issued an illustrated leaflet on the subject, and, through the courtesy of its publication branch, we are able to reproduce the three illustrations, showing the external appearance of the diseased

tubers and a magnified representation of the spores of the destructive parasitic fungus that is the direct cause of the disease.

The photograph showing the warty outgrowth is in itself sufficient to enable anyone to recognise the trouble. The warts, however, may be so small as to be easily overlooked. The cells of the warty tissue contain the resting spores of the fungus, and these are clearly shown in Fig. 3. It is by means of these spores that the disease spreads. Clearly, then, all such affected tubers should be immediately destroyed by fire. It is most important in the interests of the Irish seed-potato trade to keep our stock free from all suspicion of the disease. In case of doubt, samples should be submitted to an expert for

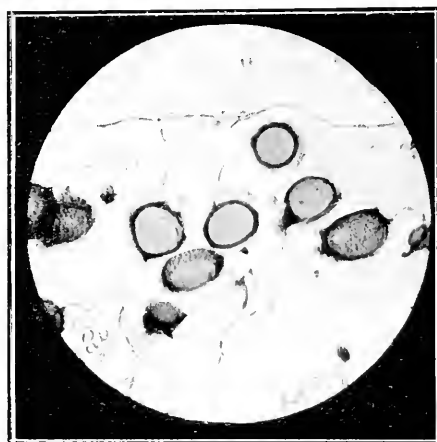


FIG. 3.—Thin slice of marginal part of warty growth showing the thick-walled resting spores situated in the cells of the tissue (highly magnified).

examination. We shall be pleased to examine and report upon any "suspects" submitted to us by readers of this journal. Copies of the Department's leaflet (No. 91) may be had on application to the Secretary, Department of Agriculture, Upper Merrion Street, Dublin.



### A Note from Glasnevin.

*Campanula Longistyla*.—This species adds another attraction to the beautiful and interesting members of the campanula tribe. It has flowered this year for the first time at Glasnevin, and plants in flower can be seen outside the Water House and in various other parts of the garden. The plant is perfectly hardy, and the flowers are a good, deep, shining violet, hanging from stems which vary in height from one foot to five feet. *Campanula longistyla* is, perhaps unfortunately, a biennial, which means that seedlings must be raised each year if a succession is to be kept up. This species was first described by Mr. V. Fomaine in a publication issued by the authorities of the Tiflis Botanic Garden. It gets its name from the long style, and is a native of Transcaucasia. Sir Trevor Lawrence received an "Award of Merit" for this campanula at a meeting of the Royal Horticultural Society of England held in London in August, 1907.

R. M. POLLOCK.



## Roses.

By O'DONEL BROWNE, M.D.

THE National Rose Society held its annual metropolitan show in Regent's Park, London, on July 3rd, and to us in Ireland it will be a memorable one for many years to come. At the commencement of June it was a very doubtful point if anyone from Ireland would be able to give a good account of himself. However, Nature turned on heat at such a pace that by the second or third week it was a question here, at any rate, if blooms would ever last. Those that came were rushed, and had not time enough to swell, and all the dark reds—and they were precious few—were burnt at the petals' edges. However, on the evening of July the 2nd six of us met, all bent on winning. Before we had got on the mail-boat one of us had his hopes shattered, as those *careful porters* at Kingstown Pier had turned one competitor's boxes all upside down; and, of course, they were mine! Such a mess in five seconds! I sincerely hope those men may be rewarded by their officials! With a kindness I can never forget—and who can show kindness like a brother rosarian?—my fellow-travellers their best to put matters right; but I felt I was done for, and so it proved to be. Out of over sixty-five blooms I could only stage twelve decent flowers next day.

Turning now to the show, one heard on every side complaints of drought and excessive heat. In the championship class our firm of rose-growers from Newtownards should have been first—by everyone I met I was told so—still they only were fourth. In the largest class (forty trebles), however, they were second, whilst in the twelve vases (seven blooms to a vase) they were away first, and the rest of the competitors were placed, as racing men say, amongst the “also ran.” For twelve new roses the same firm (Messrs. Alex. Dickson) got an easy first for their twelve “William Shean,” and in this box was found the best hybrid Tea in the show (silver medal). It was a treat to see the raiser showing his own seedling so well! Messrs. Hugh Dickson, of Belfast, did well in their several classes—I think they deserved more—but it cannot be helped. But what pleased me most of all was to see my friend Dr. Campbell Hall on the war-path. I thought I would be competing against him—but, oh! dear no—he had better ideas in his head than ordinary showing. He was going for the gold medal—the highest trophy a rosarian can win—for a brand new seedling rose raised and cared for by his own brains and hands, and HE GOT IT. It was a triumph we were all delighted at. I do not think that throughout all the show there was a more popular win. Last year he had bad luck in not hitting the day, but he did not miss this year. “Mrs. Campbell Hall,” for so the worthy doctor calls this new rose, is a pure Tea rose—a very large, stately-shaped flower; colour, a rich cream suffused with copper and peach. The edges of the petals in the half-expanded flower reflex in a charming manner, making the bloom most beautiful when looked into. When he intends sending it out I know not, but when Messrs. Dickson themselves state that it is the finest Tea rose ever grown you can imagine what you are to get in the future. He has many more seedlings coming.

In the decorative section I considered Messrs. Hobbies stand of 100 square feet glorious. Nothing but weeping standards reaching up to the top of the tent and showers of roses such as Dorothy Perkins coming down to your feet. Messrs. Paul & Sons were second, having in their stand some lovely *new* seedlings—one a distinct new break of rose called “Amber,” a result of crossing the Wichuriana section with, I think, a Tea. They purpose calling this class a “Wichytea.” It was a tiny single rose—the unopened bud a deep rose, the expanded flower pale,

yellowish pink. The ladies' classes for baskets, sprays, &c., were beautifully done, and the dinner tables were all mostly decorated with single roses, the first prize being done with “Irish Elegance.” Dry-weather roses, such as Bessie Brown, William Shean, Mildred Grant, Dean Hole, where shown at their best—the weather was much against dark-red flowers. The only unfortunate part of the show was the heat; one had to be there to see how the roses were fleeting, and by five o'clock every bloom was a mass of wilting petals. The bench for new roses, not yet on the market, was entirely filled by our Irish nurserymen. Messrs. M'Gredy, of Portadown, showed four new varieties, winning a card of commendation. Messrs. Hugh Dickson, of Belfast, had three varieties—they also got a card of commendation. Both of these firms will give a better account of themselves before long. Messrs. Alex. Dickson, of Newtownards, got a gold medal for “Meta.” (Should be Meta Weldon.) They also showed four other varieties. It was too late when I reached this class to make notes for a criticism. I was sorry they did not show their seedling called after me, but they have time enough. It would have gone a long way to pacify me. But, oh! those — Kingstown porters, I shall remember them next year!

### Dr. J. Campbell Hall.

DR. J. CAMPBELL HALL has for many years been our champion rose grower. In his two little gardens at Rowantree, Monaghan, a visitor can wander among his beloved flowers, and see there the rose in all its beauty. The worthy doctor does practically all the work himself, not to mention the huge amount of additional work he has imposed upon himself now that he has been bitten with the fever of hybridizing. When I visited him I found a great portion of his vegetable garden eaten up with seedling roses. This was two years ago, and I often wonder how much more has been sacrificed since. This year must ever be his best, as, at last, he has gained that coveted gold medal for his new Tea rose—“Mrs. Campbell Hall.” To show against him I always feel I am fighting a stern foe—for he will not spare you—but, winner or loser, he is always the same—kindly, genial, and good natured. On behalf of IRISH GARDENING I congratulate him most sincerely on his winning the gold. It only shows what I have pointed out before in this paper—that the love for roses can be enjoyed by a busy man. As he himself once remarked to me, “No matter how tired I am, if I can only get five minutes at my roses I am fresh again.” May he ever remain fresh!

O'D. B.



THE CLARE HORTICULTURAL SOCIETY.—The exhibition of this society, announced for August 19th, has been postponed to August the 26th. This society seems to be doing very good work in the west. According to the annual report of 1907 there were in all 350 exhibits at the last show, being 104 over the number of the previous year. There is one particularly interesting competition arranged by this society for children attending the national schools. Seeds are distributed (we presume as gifts) and prizes awarded for the best plants grown from these seeds. Last year 400 children entered for the competition. We commend this idea to other societies as a simple, inexpensive, and effective method of inculcating a love for gardening among the younger generation. To induce 400 children to at least try to successfully grow a few plants from seedling to flowering stage is work well worth the doing, and, if these competitions are continued, they cannot fail to create in time a considerable influence upon the extent and character of cottage gardening throughout the county. Mr. H. Bill, Lifford, Ennis, is the hon. secretary.

## Sweet Peas at the Shows.

THE Metropolitan Show of the National Sweet Pea Society, which is the great event of the year to every lover of this sweetest and most popular of all the annuals, will have been held before the August number of IRISH GARDENING is ready for distribution, but at too late a date (July 24th) to admit of a satisfactory account being given in this number. If rumour does not belie herself quite a host of new varieties will be submitted for adjudication by the judges and for the admiration of the enthusiasts who will assemble at Vincent Square on that date.

August 5th will, however, be the "red letter" day for Irish growers, when the National Sweet Pea Society will hold its second great show for this year in conjunction with the Royal Horticultural Society of Ireland at its Autumn Exhibition at the Royal University Buildings, Earlsfort Terrace, Dublin.

We may confidently expect that all the principal novelties of the year will again be on view, and we shall doubtless see in the exhibits

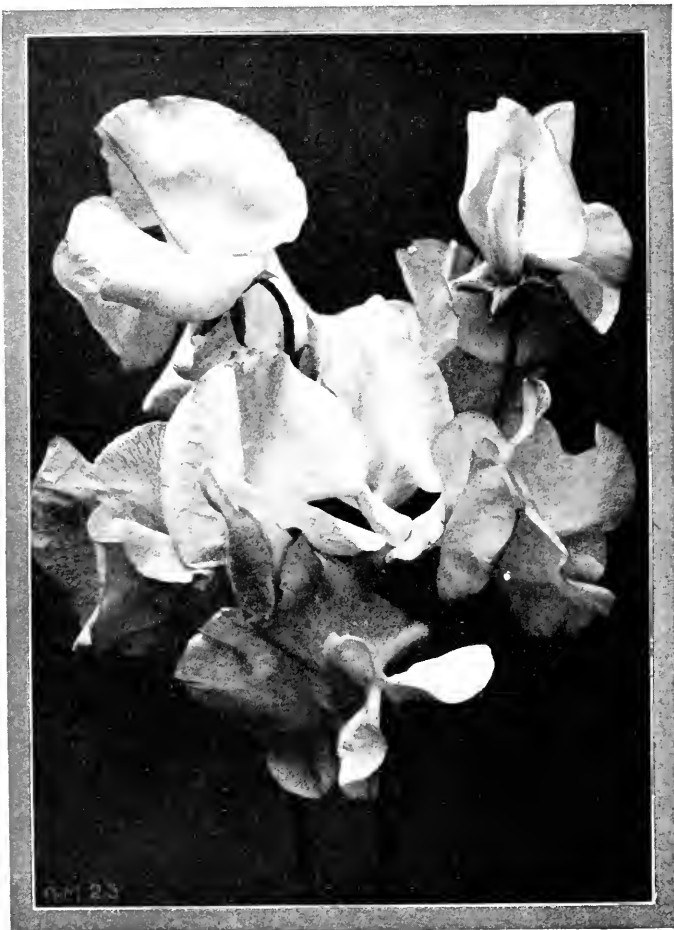
of our most enthusiastic Irish growers many of the exquisite varieties that were introduced and distributed last year, such as Evelyn Hemus, Constance Olliver, Sutton's "Queen," Saint George, Princess Victoria, Etta Dyke, James Grieve, The Marquis, Rosie Adams, Audrey Crier, &c.

What are the points that we must look for in estimating the excellence of the new or older varieties? First form, then size, substance, purity of colouring and freshness, these are all essential in blooms of exhibition quality;

the stems must be long and stout, carrying at least three if not four blooms, so arranged on the stems as not to overcrowd each other, nor yet so far apart as to present a leggy appearance, and, as nearly as possible, all facing in the same direction. The differences in the "form" of the blooms of the various varieties are usually differences in the character of the standard, from the upright and almost circular standard of Bolton's Pink or Dorothy Eckford

to the hooded form of Mrs. Walter Wright, the waved standard of Countess Spencer, and the frilled form of John Ingman, when it is true.

Next to the "form" and size of the blooms, substance and purity of colour is the great essential. This is the great charm of Dorothy Eckford. In no other white is there such substance and purity of colour. All the newer and waved white varieties are decidedly transparent when placed alongside this older and well-known flower, which undoubtedly still holds the premier position in its class. Next in importance is freshness, absence of spots and weather stains. All blooms having such im-



Audrey Crier. Flowers waved, rich bright pink.

[From Curtis's "Sweet Peas."]

perfections should be ruthlessly eliminated. Far better a small bunch of perfectly fresh blooms, well displayed, each one exhibiting its perfections to the discriminating judge, than a fuller bunch in which are many faulty blooms. "Quality not quantity" is the desideratum in such cases.

The most careful attention having been given to the selection and displaying of the individual blooms in the vases on the lines indicated above, an exhibit may be ruined by carelessness in colour arrangement. Though there are so

many colours and shades of colours amongst sweet peas, there is an undoubted preponderance of pink, and unless the utmost care is exercised this colour will predominate. A well-balanced exhibit must have some of the darker colours—maroons, purples and crimsons—although individually they may not be such favourites. An important point which must not be overlooked is the clashing of colours with neighbouring exhibits. In a crowded exhibition there is very little space between each exhibit, and a neighbouring Queen Alexandra may kill one's Helen Lewis, John Ingman, or Henry Eckford, and a Horace Wright will ruin an A. J. Cook or a Frank Dolby.

It will be readily understood from the points enumerated above that the staging of sweet peas is not an easy matter, lightly to be entered upon; that the utmost care, attention to details, and taste in arrangement of colours are required to attain that perfection which will commend itself to the judge and to an appreciative public, who will probably have very little idea as to the time, thought, and patience that have been expended to achieve success. H. J. R. DIGGES.

### Current Topics.

By PETER BROCK, Horticultural Instructor, Co. Fermanagh.

THE warm weather during the closing days of June and the opening days of July being followed by heavy rain has pushed on all kinds of crops, so that the present prospects appear to indicate an early and bountiful harvest. Garden crops on deeply tilled land

and under subsequent proper surface cultivation with the hoe made rapid progress during the time the great heat lasted; whereas crops on shallow cultivated land and surrounded by a crusted and weedy surface have, in many cases, been stunted for lack of moisture.

The apple crop, on clean land, looks very promising, the trees being much refreshed by the recent heavy rains, and the fruit is swelling very satisfactorily. Orchards in grass, however, have a pinched look, indicating that they have not yet had sufficient rain to moisten the roots growing under the robbing and paralysing influence of a heavy crop of hay—the strongest grasses being found, owing to the extra top-dressing intended for the apples, on the space that should be set apart for the trees and kept clean. The prevalence of such primitive cultivation, due in some cases to greed, indifference to adopt more progressive methods, or laziness, is responsible for the scarcity of first-class home-grown apples in our markets.

The sparrow, near towns, is one of the worst of feathered pests, sometimes causing considerable damage to gooseberries by destroying the buds. I have recently had some experience of the damage they may work on sweet peas by nibbling the flower buds as they appear. To attempt to destroy them looks an impossible task, and placing threads through and along the stakes appears to have very little effect in scaring them. However, spraying the plants overhead four evenings in succession with strong quassia

extract and soft soap appears to have had the effect of making the buds too bitter for them. Aphides have been very troublesome this season, the low temperature during the greater part of June seemed to favour their rapid increase. Extract of quassia and soft soap is with some a favourite remedy, being safe, cheap and effective. But for broad scale work, paraffin emulsion appears to be equally effective, and is somewhat cheaper. The secret of success in combating these persistent pests lies in attacking them early, or better still by anticipating their appearance, by adopting preventive means when they are likely to appear.



Etta Dyke. Flowers waved, white.

[From Curtis's "Sweet Peas."]

## The Herbaceous Border.

THERE will be very little to do in the border this month, with the exception of cutting away withered flower stalks, dead flowers and leaves of plants, and the keeping down of weeds. Continue to stake all tall-flowering plants when necessary, also to take notes of all misplaced plants in regard to colour and height. If the weather continues dry for any length of time, give the layered carnations a few good waterings, and see that there is plenty of fine soil around each layer. If wallflowers and other biennial plants are not yet transplanted the work should be done at once.

F. HUDSON.



### Flax.

THE genus *Linum* (Latin for flax) contains about eighty species, ranging over the temperate and warm regions of the globe, but especially abundant in the Mediterranean region and Western Asia. They are mostly perennial, although the two best-known species in this country (the common and the scarlet flax) are annuals. The flax here illustrated (the perennial flax, *L. perenne*) is a native (although rare) of Britain, affecting limestone districts especially. The flowers are blue, as a rule, but some varieties are pink or white. When any species of flax is cultivated it ought to be sown in broad patches to be really effective. They will grow in any ordinary garden soil, but they seem to prefer a sandy loam intermixed with leaf-mould. They love the sun. *L. arboreum* is a pretty dwarf shrub, with yellow flowers, and is a native of Crete. It is very suitable as a pot plant. *L. flavum* is a handsome, golden-yellow flowered shrub from central Europe. Its stems die down in the winter. It is a good border plant. A very suitable subject for the rockery is *L. viscosum*, a Pyrenean perennial species, one to two feet high.



### Harmonious Grouping.

THE mixed flower border, when intelligently planted forms one of the most pleasing pictures in the garden. Unless, however, one has had long practice, together with a good knowledge of plants, it is impossible to

obtain the best effects until after a few years' study and re-arrangement. How often one sees borders in which the plants are arranged anyhow, and apparently without the least concern as to size, height, colour, or time of flowering of the different subjects. We are now addressing the ordinary man or woman who takes an interest in the garden and delights in the variety, colour, and fragrance of the mixed flower border. To such, then, we would suggest that at this season of the year, when the plants are fully developed, a careful study should be made of the border as a whole, with a view to its future improvement. First, as to arrangement—are all the plants so placed with respect to one another that none are completely hidden? Are those that love shade or shelter and those that love sunshine properly provided for? Then, as to grouping—are plants of the same kind, such as larkspurs and asters,



*Linum Perenne.*

dotted here and there over the border as isolated specimens, or are they massed in imposing groups of colour? Furthermore, have you got the colours right; do they harmonise pleasingly? Have you the deep-blues, for example, effectively set off with white, and are the reds, orange, and yellows so placed as to form a combined colour scheme? In other words, the effect of the border as a whole is to be considered and not individual flowers. A misplaced plant, no matter how beautiful in itself, is an eyesore, a jarring note, where there should be perfect harmony. Another point to be considered is the time of flowering of the different subjects, so as to secure a uniform flowering all over the border during the whole season. These are mere hints indicative of the lines along which you should labour to get the most useful and

charming effect out of that most interesting of all features of the garden, the herbaceous border.



### Keep Cutting the Flowers.

IT should be remembered that when growing plants for their flowers alone, the resources of the individual plant can be materially strengthened by preventing the formation of fruits. The reason of this is obvious when we consider the great saving in food and vital energy effected by relieving the plant of the exhaustive work associated with the rearing of young, which seed-formation, of course, really means. It will be noticed that when a particular plant in the border has produced its complement of flower spikes all growth is practically

stopped until the seed-pods are ripe. When this process is complete the plant as a rule is exhausted for the season. If, however, the flowers are removed after the fall of the petals the plant is still in its full pulse of life, and the food that would otherwise have been utilised in forming the embryos and stored as reserve in the ripened seeds will be used either for the production of a fresh lot of flowers or else stored in the rootstock to feed the new shoots next spring. The mere plucking of flowers never injures the individual plant, but strengthens it rather, a fact that lovers of the herbaceous border should always recognise and understand.



### Gaillardias.

THESE charming herbaceous perennials are deserving of a place in every garden, their beautiful shades of colour, together with their long and free-blooming qualities, should make them general favourites. Where an abundance of cut bloom is required they are invaluable, as they last for several days in water. During a severe spell of drought they give a supply of brilliant blossoms when other perennials are almost flowerless. Though not particular as regards treatment, gaillardias thrive best in deeply tilled and well manured soil; if heavy, some leaf soil should be added. The herbaceous border is usually the place allotted to those plants; here they will be seen to the best advantage if planted in bold groups and given plenty of space. I have seen them used for bedding, and where one distinct variety is confined to each bed a very pleasing effect can be obtained.

A distance of fifteen inches should be allowed when planting; and as growth proceeds, keep them pegged down; in this way the soil will become hidden from view, and a mass of brilliant bloom the result. On the approach of severe frost some coal ashes may be placed around the plants; this will aid in keeping them from decay, and at the same time prevent the ravages of slugs. With regard to varieties, we have quite a multitude to choose from, and as each one has its own individual charms I will not take up valuable space by enumerating them here. All varieties required can be obtained from any of our Irish nurserymen.

Gardens, Killeen Castle, Dunsany. P. MAHON.



"You must remember it isn't only laying hold of a rope—you must go on pulling."—*G. Eliot.*

### The Snake's Head Fritillary.

OUT of some fifty species that make up the genus *Fritillaria* only two are in general cultivation—*F. imperialis*, the "Crown Imperial," and *F. meleagris*, the subject of this note. *F. meleagris*, popularly known as the "Snake's Head" or "Turk's Cap," with its solitary bell-shaped flower terminating the slender twelve-inch stalk, is a very different-looking plant from the stately Crown Imperial.

It is a beautiful, if not showy, plant, and particularly valuable for cutting; the narrow, grass-like leaves that clothe the stem furnishing all the foliage necessary to its embellishment. If cut with a sufficient length of stem and inserted in fresh, green living sphagnum in a bowl filled with water (see illustration) it has all the appearance of the growing plant, and will keep fresh for several days. As the flowers fade the recurved stems straighten, so that ultimately the seed vessel is erect. The plant ripens seed freely, but it is a slow process to raise seedlings, as it takes some

years before they reach the flowering size. They increase by offsets from the bulb, and in this manner they are usually propagated. In several counties in the midlands and south of England this plant is found growing wild in meadows, particularly in Oxfordshire and Berkshire, and late in April, when their striking and handsome flowers are displayed, their haunts are frequently raided by children, and grown-up people as well, who carry off the flowers in such quantities that



The Snake's Head Fritillary as a table decoration.

one marvels at their persistence, especially if, as some botanists hold, the plant is not indigenous to the country (in Europe its range extends from Sweden to the Caucasus). While there is usually only one flower to the stem, sometimes two will appear. The usual colour is pale purple, chequered with a darker hue, but whitish or greenish-yellow flowers are common. It is from the chequered or tessellated markings of the flowers in several of the species that the generic name, *Fritillaria* (*fritillus*, a chess-board) is derived.

W. B. B.



"It should be remembered that a beautiful garden is a place of pleasant labour and happy restfulness, and that the more it can be filled with perfect pictures the more it gives delight to the eye and solace to the mind, and the nearer it approaches to the making of an earthly paradise."



"THERE'S rosemary, that's for remembrance . . .  
And there is pansies, that's for thoughts."

# Irish Horticultural Societies.

## I.—The Royal Horticultural Society of Ireland.

I AM asked to give a short account of our premier Irish Gardening Society, but, unfortunately, its story seems lost in the long ago. Having been more or less intimately in touch with it for over thirty years, however, I am able to look back on those times when the late Mr. Ambrose Balfe was its secretary,

and its home was 28 Westland Row, Dublin. But it was an old society then, having been founded, it is said, in 1830, and a vivid recollection occurs of Balfe never failing to impress with some pride on all recruits to its ranks that it was the first of its kind to be dignified with the title of "Royal," the present Royal Horticultural Society of England taking second place in this glorification. Those were the palmy days of the Royal Horticultural Society of Ireland, a reminder of which is seen in a good



Edward Knowldin.

portrait, in the present offices, of Augustus Frederick, third Duke of Leinster, who was its president, and who was succeeded by Charles William, fourth Duke, who was president when the writer first knew it. As the latter nobleman's then gardener, it may be mentioned, respecting the interest he took in it, that the writer got a "wiggling" for being absent from a certain show in 1877, and "too busy" was no excuse for his Grace, who said—"I wish you to attend every show *at my expense*, because *we* must be seen at them." As a matter of fact, it was rare indeed that this genial nobleman *was* absent, although Balfe, when heading the Council engaged in conducting its Viceregal patrons on a tour of the tents, was the biggest man there, and this with all due respect to the memory of one who was indefatigable as the Society's Secretary. From thence till now the society has held on its course for the benefit of Irish horticulture, directly or indirectly; but, of late years, the wane of public interest in its shows has proved a stumbling block in the track. There are, happily, good reasons for thinking that renewed interest is being taken in it and its work, and if past glories are but "links of a broken chain, wings that can bear us back to times which cannot come again," the present council's endeavour to make it a real, living factor in the great world of Green Isle gardening will not be in vain. Under the presidency of Lord Ardilaun, with Mr. F. W. Moore as honorary secretary, and its council of twenty-four, including a representation of practical gardeners, one dares to prophesy that things will go ahead on lines, perhaps, better adapted to bring it in touch with the times. Included in the aims of the Royal Horticultural Society of Ireland is that of coming into sympathetic touch with the various district horticultural

societies of Ireland, any of which can be affiliated for a small fee, and receive the benefits of its medals for distribution in their own particular arena of competition, and with increased membership, which it is hoped will happen at the advent of another year, the sphere of its usefulness will be considerably augmented, with a probable extension of the privileges members already have for their modest annual guinea—privileges which all practical gardeners may have for half that amount. As for present work, who could forget the gigantic fruit show at Ballsbridge but a short two years ago, when close on two thousand entries were staged, or, whilst lamenting the want of public appreciation displayed, ignore the value of such in one of the most important phases of Ireland's industrial economy? In concluding this brief notice of our venerable horticultural society, it is with regret that our good editor cannot get exactly what he wants, but it is the best I have to give, and respecting any further information as to its present aims and objects, that will be readily provided for those interested on application.

EDWARD KNOWLDIN, F.R.H.S., Secretary.

5 Molesworth Street, Dublin.



## Horticultural Shows.

### Hints for Exhibitors.

By WILLIAM TYNDALL, Instructor in Horticulture, Co. Kildare.

THE Editor has asked me to write a few notes on the above, and I do so with much pleasure, though the subject deserves an abler pen than mine. Nowadays, nearly every town of any importance has its annual show, bringing the people together in friendly rivalry, and these competitions have done much to bring the growing of vegetables, flowers and fruit to the highest excellence, and their influence for good must, indeed, be great, as it is only by careful cultivation that products of high quality can be obtained.

Let exhibitors bear carefully in mind the following suggestions:—To have finished staging by the time named in the schedule for the judging to commence. In very few shows in Ireland, with the exception of Belfast and one or two others, is this rule strictly adhered to. Consequently, the judges often have to hasten over their work, as the show is advertised to be open to the public by a certain hour, by which time the awards are expected to be made. Exhibitors are often puzzled by the use of such terms in schedules as "species," "kind," "variety," and "sort," and committees cannot be too exact in making out schedules, as it is very often this very indefiniteness that is responsible for much of the dissatisfaction often expressed at shows, two of the above terms (as advised in Rules of Judging, R. H. S., which I have consulted in writing these notes)—viz., kind and variety—being ample if used in the following sense:—Peaches, apples, and pears are distinct *kinds* of fruit. Cabbage, cauliflower, and parsnips *kinds* of vegetables. Beauty of Bath, Worcester Pearmain, and Cox's Orange Pippin are *varieties* of apples, and Flower of Spring, Nonpareil, and Offenham are *varieties* of cabbage.

Name correctly and neatly your exhibits as if the dishes, say, in collections or single dishes of fruit, vegetables, or bunches of flowers are unnamed much of the educational value of shows is lost; and yet how seldom do we see it neatly done at country shows! Let exhibitors read carefully the schedule of their show, and comply with all its rules and regulations, and if unable to understand any one of them let him write to the secretary of the show, who will only be too pleased to give him all information.

Annuals are plants which begin and end their growth, ripen, seed, and die within twelve months; therefore, plants capable of being propagated by cuttings are not true annuals.

Biennials are plants ordinarily requiring two full seasons to complete their growth, and die before the third season.

Perennials are plants that continue for many years, and include all not annuals or biennials.

"Herbaceous" are plants the stems of which die down yearly, but the root stocks remain alive and throw up stems again the following year. For garden purposes the word rootstock includes bulbs, corymbs, and tubers. Such plants as carnations and pinks are not herbaceous, and if a class in a schedule was for herbaceous plants the above two would be excluded. A class for hardy perennials would not only include carnations and pinks, but also roses, genista, clematis, syringa, &c. The word "distinct" should never be used alone in schedules without the addition of the words kind and

stout, carrying three or more flowers free from spotting and scorching.

SWEET PEAS—VALUE OF POINTS.

		Points.
Form and Substance	...	2
Colour and Freshness	...	2
Attractive Setting-up	...	2



A MODEL EXHIBIT.—Readers who are exhibitors at our horticultural shows will be interested in the photograph here reproduced (through the courtesy of Messrs. E. Webb & Sons, of Wordsley, the exhibitors) of the collection of vegetables that secured the gold medal (one only being awarded) at the International Horticultural Show recently held at the Franco-British Exhibition in London. There were nearly 100 varieties included in the prize collection, which, in addition to "vegetables" proper, contained melons, tomatoes, cucumbers, &c.



A Model Exhibit of Vegetables.

variety in classes for hardy flowers. If the word kinds is used only one member of each family can be included, as poppy, delphinium, helianthus, &c., while if the word variety is only used all the bunches might be only different varieties of delphinium, *Phlox decursata*, or poppy, &c. If the word distinct varieties is used in classes in schedules the mixture of colour variations should disqualify. But in connection with showing annuals colour variation is allowed unless specially forbidden.

The following are the points given in judging a collection or bunch of hardy flowers, as taken from N. H. S. Rules for judging:—

HARDY FLOWERS—VALUE OF POINTS.

	Points.	
Quality of blooms	3	For each Bunch.
Freshness	2	
Elegance of habit	2	
Rarity or difficulty of cultivation	3	
Variety of form and colour	2	For whole Exhibit.
Arrangement, Naming, &c.	2	

Now that sweet peas are so largely grown, and the National Sweet Pea Society's Provincial Show being held in Dublin on August 5th, it would be well for exhibitors to bear in mind the following rule:—Sweet peas to be shown in lightly arranged bunches, so that all flowers can easily be seen. Stems long and

In these days of sensational newspaper booming of "French gardening," it is some satisfaction to know that a British seedsman can beat all-comers when put to the actual test of an international competition.



DOES A GARDEN PAY?

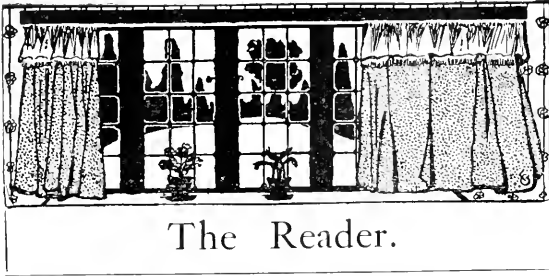
"Does a garden pay?" I might answer indignantly, does it pay to kiss your wife, to dandle your baby, or do anything else agreeable to human nature? Is the gain in health, strength, and happiness which this Eden form of recreation secures to be gauged by the dollar symbol? Can the flavour of your own crisp lettuce or strawberries and cream be bought? Is the perfume of the flowers that your own hands have planted to be had in the market? "I don't believe that Eden was laid out on the principle of a "truck-garden," every inch being planted in a profitable crop; nor do I think that Adam and Eve hustled out every morning with the expression seen on so many faces—"Time is money." The question in regard to a garden seems to me to be: Shall we enjoy a little bit of Paradise this side of Jordan?"

—E. P. Roe.

'Tis always morning somewhere, and above,  
The awakening continents, from shore to shore,  
Somewhere the birds are singing evermore."

—Longfellow.





The Reader.

## Forest Entomology.

HOWEVER delightful the study of entomology may be to a lover of nature, few but the specialist or enthusiast find time to proceed further than a slight acquaintance with the more common species of insects found in field, garden, or woodland. The farmer, gardener, and forester, nevertheless, are continually meeting with specimens of injurious insects which excite their curiosity and arouse in them a desire to know something of their characters, life histories, and economic importance, but which have to be hurriedly passed by owing to lack of time to devote to their identification or observance.

Thanks to the practical entomologist much has been done of late to simplify the economic study of insects by the compilation of works which satisfy the scientist as regards nomenclature and descriptions of specific characteristics, but which, at the same time, devote more space to personal notes and descriptions of insects which particularly affect cultivated plants than to purely scientific details or methods of classification.

All who take a lively interest in trees and shrubs, and particularly the forester, nurseryman, or gardener, whose interests are closely bound up with them, must feel deeply grateful to Mr. A. T. Gillanders for preparing a work of the above kind, in which is embodied the results of many years close observation and careful research on insect life, as this affects forest trees or shrubs in Great Britain. This work,\* upon which the publishers have spared no expense in the matter of paper and illustrations, is a handsome octavo volume of over 400 pages, profusely illustrated from original photographs and drawings or reproductions from well-known works on entomology.

The author divides his work into fourteen chapters, in addition to an introduction on the structure of insects in general. Beginning with the Eriophyidae or Gall-mites, of which the currant-bud mite is a well-known example, the various orders are dealt with in turn. Needless to say, no insect is mentioned which is not associated in some form or other with a tree or shrub,

and a large number of species of little economic importance are consequently omitted altogether. An interesting feature of the book is provided by the admirable illustrations of damage effected upon bud, leaf, stem or fruit, so that the cause of the injury may often be identified by its appearance alone, a matter of great convenience to the busy, practical man, although this method may not commend itself to the professional entomologist.

In a work of such general excellence it is difficult to select any portion more worthy of notice than others. Naturally, the important orders of *Coleoptera*, *Hymenoptera*, and *Hemiptera* receive a good deal of attention, and probably the chapters on these are fuller than those devoted to other orders. The gall flies, aphides, and scale insects in particular are thoroughly described and illustrated, and the practical forester is thus enabled to gain much information on classes of insects which possess extremely complicated life histories, and require a great deal of close study before they can be identified by ordinary means. A chapter on collecting

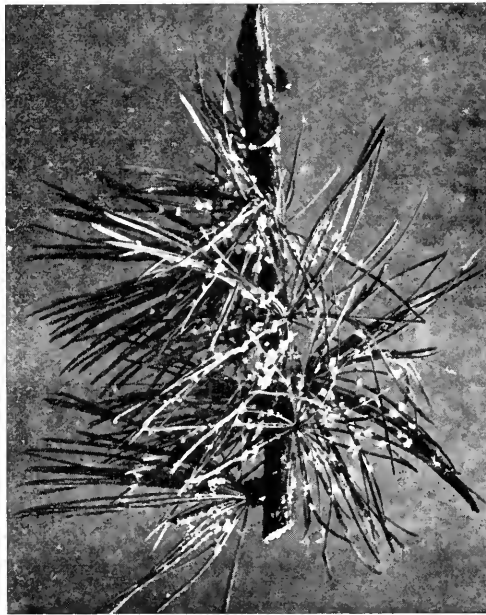
and preserving insects is given, and one on insecticides furnishes extremely useful hints to the nurseryman and planter.

Altogether this book is probably the most important work on forest entomology in general yet published in the English language, and is a decided improvement on the mere translations from German authors, which have hitherto had to serve the British forester in need of information on specialised insect lore. A. F. C.

## Intensive Cultivation.

A SYSTEM of intensive gardening aided by artificial heat which has been in vogue for years past in the neighbourhood of Paris is at the present time receiving much attention from English market gardeners. It is referred to as the "French" system of gardening, but it is only a very old and well-known method of forcing the growth of plants, modified and extended so as to produce very large quantities of vegetable products for market. The heat is obtained from the fermentation of stable manure. Large

quantities are collected for months, so that when used it has already passed through the violent stages of fermentation. This mildly warm manure is mixed with a little fresh immediately before the preparation of the beds. These beds are covered with soil and then sown with seed or planted with young plants. Protection is afforded by the use either of glass bell jars ("choches") or of roughly made frames and lights ("chassis"). One peculiarity of the system is, that as many as four crops can be grown at the same time under each bell or frame, and, as the system further allows growth to go on all the year round, summer and winter, the amount of produce that can be annually marketed is simply prodigious. A favourite group-cropping is to sow thinly radish seed and either early carrot or turnip seed, and then plant among them young lettuces. The radish will be ready



Chermes

(An Arboreal genus of Green-fly)

On the foliage of larch. The affected shoots appear as if covered with specks of snow. Each little woolly speck contains a mother-fly and her eggs.

[Specimen illustration from "Forest Entomology," A. T. Gillanders.]

\* "Forest Entomology." By A. T. Gillanders. Blackwood & Sons, Edinburgh.

in six weeks, then the lettuces follow, and, after their removal, young early French cauliflowers are planted. All the while the carrots or turnips are progressing favourably, and will eventually yield a profitable harvest. Full information can be obtained of the system by consulting either of the two little books that have suggested this notice.\* Only a day or two ago a young lady, resident in Dublin, who had been on a holiday visit to Paris, called to tell us about the interesting "gardens" she had visited during her stay in the French capital. The methods and the results had impressed her very much. The system has been on trial at Evesham for over two years, and quite recently experiments have been started on the same lines in the County of Essex.

**PANSIES AND VIOLETS.**—Another handbook in the "Practical Gardening" series has just been issued.† It deals with the ever popular and fascinating flowers—pansies and violets. The work deals very fully with the subject. The various types of flower are described, and in most cases beautifully illustrated. Propagation, raising of new varieties, and general cultivation are clearly dealt with. Exhibitors will find many valuable hints both with regard to cultural treatment and to methods of exhibiting, while a most interesting chapter is devoted to the use of pansies for house decoration. One of the author's suggestions in this connection is to get a shallow earthenware pan, paint it on the outside with a dainty colour, fill it with sand, and then saturate the sand with water. Leafy, flowering sprays of pansies are to be cut and inserted in the sand, taking care to arrange the blooms as naturally and artistically as possible. The pans can be placed anywhere, and the flowers will keep fresh for a long time. With regard to exhibiting, it is quite refreshing to discover an author who sets his face against the silly "pansy trays" so much in vogue among exhibitors. Surely it is about time that our horticultural societies discountenance such childish exhibitions as rows of pansy flowers stuck into holes in rectangular tins, the poor blooms smoothed out flat, completely spoiling their natural beauty; and as if this was not barbaric enough, some will even provide each bloom with an absurd little paper collar, as if this is the kind of "art" that will improve Nature!

*The Country Home* (July) contains a beautifully illustrated article on "Water in Landscape and Garden," including views from the grounds at Fota, Co. Cork; Powerscourt, and Mount Usher.

## Catalogues.

**TULIPS, NARCISSUS, AND DAFFODILS:** Being the new season's catalogue of Wm. Baylor Hartland, Ard-Cairn, Cork.—The receipt of one of Mr. Hartland's catalogues always revives pleasant memories. For the last twenty-five years or more a daffodil catalogue has been issued from this old Cork firm of bulb growers, and the wood-cut illustration on the cover of the present issue reminds us of the catalogues we used to write for—many, many years ago—for the sake of the handsome wood engravings, made from the original drawings of Miss Hartland, that appeared in their pages. Ireland should be proud of its pioneer in the cult of our Lady Narcissus, and we wish continued prosperity to our veteran bulb grower!

**LIST OF BORDER CARNATIONS AND PICOTÉES,** also American and English and Malmaison Carnations grown by Hayward Mathias, F.R.H.S., Medstead, Hants. The list (illustrated) includes novelties for 1908, new and recent introductions, and a general collection. At the National Carnation and Picotée Society Show, held in London last month, Mr. Mathias's exhibits were awarded two first, three second and five third prizes.

\* "The French Garden: A Diary and Manual of Intensive Cultivation," by G. C. D. McKay, *Daily Mail* Office; 6d. "Gold-producing Soils," by T. Newsome, Steele & Co.; 1s.

† "The Book of the Pansy, Viola and Violet," by Howard H. Crane. London: John Lane. 2s. 6d.

## Bee-keeping.

By T. MAGUIRE, The Orchard, Enniskillen.

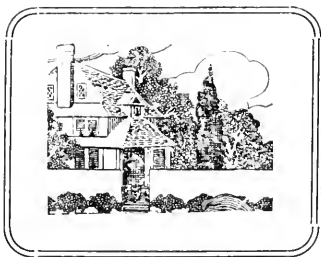
THE tremendous glut of honey and the great heat in the latter part of June and beginning of July caused a good deal of trouble with swarming where stocks were insufficiently supered or where the hives were badly ventilated or not shaded from the direct rays of the sun. Swarming is undesirable for various reasons. There is the risk of losing the swarm, there is the bother and fuss of hiving the bees, especially when, as often happens, two or more swarms go out at the same time; there is the time lost by the owner, who generally has plenty of other work to attend to at such a time, and by the bees, who are losing golden moments indeed, considering that their whole harvest often only extends over a fortnight. Probably more swarming is due to excessive heat than any other cause. Bee-keepers who have had so much trouble that they are inclined to give up in disgust should try the effect of altering the position of the hives to a more shaded spot and providing large ventilators in the floor—10 inches by 5 is a good size—and they probably will have less trouble next season. As soon as the excessive heat is over, however, the ventilators should be closed again to avoid the possibility of chill. Some people make a point of placing their hives in the hottest corner of the garden, in full blaze of the mid-day sun. This is a great mistake. A plan I have found very effective in tiding extra strong stocks over the swarming time is to take out two frames (in case the hive does not allow of further extension) and put in two frames fitted with strips of foundation only in front. They should be placed next the entrance. They will probably be built with drone comb, and be only serviceable for melting up into wax, but they can be replaced by proper combs when the swarming period is past.

In many localities the honey flow is now over, and crates of sections should be taken off as soon as finished. Anyone who has used a Porter or Federation escape will not have any other method of clearing bees from supers. Sections nearly finished—the back and front sections are often unsealed when the rest are quite finished—can be re-arranged in a crate and returned to a strong stock to be filled and sealed. In arranging them, try and have those best filled at the ends and the lighter ones in the centre. With favourable weather such sections will be made saleable. Those which contain only a small amount of honey can either be returned to the bees in a crate on top and left there all winter, or they may be placed behind the dummy, which should be raised just enough to allow the bees access to them, and the honey will be carried into them. The Federation super clearer is fitted with a small slot which serves the same purpose, the crate being placed on top. These sections, when dry, should be wrapped up and packed carefully in a dry, warm place, safe from mice and moths, and they will be most valuable stock next season.

Robbing must now be guarded against. Prevention is better than cure, so it would be well to put slips of perforated zinc along the doorways, allowing only a small space—an inch or so—for the bees to come and go. Robbers rarely venture into a hive so guarded.

The output of Irish honey this year ought to be considerable, and the quality will be very high. Bee-keepers should not rush blindly and sell to the nearest shopkeeper for whatever price they can get. A good article will always command a price if properly handled and marketed. Sections should be spotlessly clean, wrapped in waxed paper, and stored in a warm, dry place until sold.

In districts where there is an autumn flow, the bees should be fed gently during broken weather, so as to have them well stocked with brood and bees when the hoped-for warm spell occurs in September.



# The Month's Work

## August



### The Vegetable Garden.

By WILLIAM TYNDALL, Instructor in Horticulture, Co. Kildare.

**A**S the days are getting shorter all planting should be completed forthwith. Care should be taken to secure a sufficiency of vegetables for winter and spring use. In small gardens it is particularly needful to select only the best varieties and to economise space as much as possible.

**ONIONS.**—Spring-sown onions, whether raised under glass and planted out or grown from seed sown in the open, look most promising, but will be later ripening this year than usual, as the cold, late spring retarded growth. The tops may now be bent over, as this will check the growth and cause the bulbs to swell, and at the same time hasten ripening, a process most essential if the bulbs are to remain sound for some months. If not pulled when growth ceases the onions will quickly start to grow again, and if this takes place, good-bye keeping. If the weather is fine after pulling allow the bulbs to remain on the ground for a few days before hanking (which I find the best way of storing onions); if the weather is wet the bulbs should be placed under cover, but exposed to sun and air to dry and ripen.

Autumn-sown onions are a most important crop, and in cold, late gardens the seed should already be sown, or, if not, let it be done at once. In light, warm soils sowing may be done up to the middle of the month, but a good deal depends on the district. In the north the early date will not be too soon, while in the south the third week of August will not be too late. Select an open and sunny site, well-drained. If the onions are to be transplanted (and this method gives the largest and best bulbs), the ground may only be well dug and manured; after digging give a dressing of burnt garden refuse, soot or lime, and rake in. Make the ground firm and sow the seed thinly in drills one foot apart. Some of the strongest plants may be transplanted into deeply-trenched and heavily-manured ground early in October, while any others required may be put out in early spring. Those remaining in the seed lines will be found most useful either for pulling young in April or May, or, if moderately thinned, giving a large crop of medium-sized bulbs. Good varieties for present sowing are Giant Lemon Rocca, a fine, large growing onion, and, probably, the best keeping onion in Tripoli section. Red Flat Italian and White Leviathan produce very large bulbs, but are bad keepers, so should not be largely grown. Tripoli onions are not the only kinds suitable for autumn sowing, as Ailsa Craig, Brown Globe, and Bedfordshire Champion do equally well, and keep much better. On very light soils, even with first-class culture, spring-sown onions often do badly, the crops being attacked by maggot, and failure ensues. On such ground much more use should be made of the three last named varieties for sowing now, as seldom are the autumn-sown plants attacked.

**SPINACH.**—At least two sowings of seed should be made during this month to give a supply during autumn

and winter. Ground for spinach cannot be too highly manured, as the larger and thicker the leaves the more they are esteemed in the kitchen. On some soils this crop is difficult to grow, being attacked by grub. A good dressing of soot and wood-ashes will be found of much service on all soils and indispensable on many. If the soil is very loose tread so as to give a fairly firm root-hold. Sow in lines fifteen inches apart. Victoria Round is recommended.

**CAULIFLOWER.**—Seed of such varieties as Early London, Dwarf Erfurt, or Autumn Giant should be sown about the middle of the month in an open border. For wintering the plants frames are necessary, but in addition I would plant in sheltered gardens as soon as the seedlings are large enough a good number on a dry border at foot of a south wall, and these should live over the winter, unless very severe, if protected by a few spruce branches.

**LETTUCE.**—Seed should be sown the middle and end of this month of a good hardy variety, as Hardy Green, Hammersmith, or Winter Pearl. From the first sowing often nice heads can be cut during early winter, especially if the seeds were sown on a rich south border in lines about one foot apart and early thinned out. The sowing the end of the month will give plants fit for going out the end of September and October; the small plants remaining in the seed-bed if not transplanted into nursery beds till February and March, and often then are useful for filling up gaps in the beds put out in the autumn. These will be fit for use during April and May—a time of the year when often other vegetables are scarce. A good place for planting autumn-sown lettuce, if space is limited, is mid-way between the lines of strawberry plants put out early this month, giving not less than nine inches between the plants in the line.

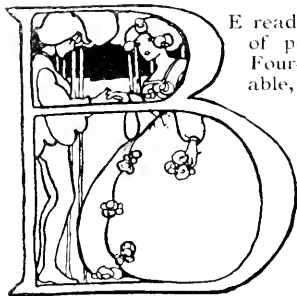
**ENDIVE.**—Where good heads of this salad is required, plants should have ample room, and this does away with "damping off" to a great extent. Thin the plants out well in the rows, planting some of the thinnings on warm, south borders, giving a good watering if the weather is dry.

**GLOBE ARTICHOKE.**—This crop is now esteemed very much in most gardens, so that the plants should be well attended to; being such a heavy feeder plenty of manure is required. If very large heads are required remove all the heads on the stem but the one on top, and all heads if not used should be cut off before flowering, cutting all the flower stems half-way off as used, removing lower portion a week later.

**POTATOES.**—Judging by present appearances a fine crop of early potatoes should be dug, as on heavy or light soils the crops look equally promising. Early potatoes are often left much longer in the soil than is necessary, as many people believe that to lift them early they will become soft for using and useless for seed, an erroneous idea. The practice of allowing the haulm to wither up before digging the crop cannot but be condemned, as when the stems once begin to colour most growth ceases, and we all know how a week of bad weather coming on when the stalks have turned over and commenced to colour often causes much of the crop to be diseased.

## The Flower Garden.

By J. G. TONER, Horticultural Instructor, Co. Monaghan.



**B**E ready to pot on young plants of pelargoniums as struck. Four-inch pots will be suitable, and compost consisting of loam, leaf mould, and a little sand will grow them well. Firm potting at all stages of their growth is essential to success.

Mignonette may be sown again from the middle to the end of this month for spring flowering.

Observe the directions as given last month, and as the young plants advance in growth thin severely, leaving finally about five in a six-inch pot. Most amateurs fail to some extent to produce good specimens, owing to the overcrowding of the plants.

If very fine specimens of that popular flower schizanthus are desired, the seeds should soon be sown, and the young plants can be easily kept over the winter in structures where a very moderate heat is maintained.

Stocks, on account of their sweet perfume, are always welcome, and seeds of the intermediate variety may be sown either in this month or September in pots placed in frames—it is not necessary to put them in heat—and if they are carefully grown during the winter will make a fine display in spring.

Cyclamens require to be potted on as growth advances. Many plants will be fit for this operation before others, therefore, only those requiring more pot room should be so treated, over-potting being very often fatal to their well being.

Cinerarias, Primulas, and *Chinese obconica audstellata* must be looked after in regard to growing on, and it would be wise in many cases to limit the number of plants rather than overcrowd and spoil them.

Calceolarias, as they are slow in growth, may be pricked a couple of inches apart in pans, and, when ready, potted on. As a general rule, six or seven-inch pots will be quite large enough to flower them in; they may be put in fours from the pans, and when fit, transferred to their final pots. Moisture, coolness, and shade are the conditions that suit these plants.

This will prove a busy time in the outdoor garden. There will be the staking and tying of the taller herbaceous subjects, thinning the growths of dahlias and mulching them; gladioli will benefit by being neatly supported, carnations to be layered, and, if necessary, seeds to be sown. In a few years quite a good collection can be got together from selected seedlings.

Chrysanthemums, whether grown for exhibition or general purposes, will need to be carefully and constantly fed. Plants having a huge mass of roots confined to comparatively small pots will be quickly checked if abundance of water in the hot weather and plenty of feeding from this period onwards are not supplied; attend also to the tying of the shoots. The early flowering kinds will soon be making a good display, and it would be difficult to select plants that give better value.

Those who are keen on room and table decoration should grow plenty of *Corcopsis grandiflora*. Seeds may be sown just now, and the young plants pricked out when strong enough.

Look out for the first arrival of Roman hyacinths, and have a batch potted up at once—three or four in a five-inch pot. Afterwards stand in the open and cover with ashes or cocoanut fibre.

## The Fruit Garden.

By GEORGE DOOLAN, Instructor in Fruit Culture, Department of Agriculture.

**SUMMER PRUNING.**—The great object of summer pruning is to open up the centre of the tree and the spaces between the permanent branches by judicious pinching and pruning to the beneficial influence of air and sunlight. This allows of the formation of new spurs, the ripening of the wood, and making the tree better fitted for fruit production the following season. Fruit on apple and pear trees get a better opportunity of being perfectly finished when a certain number of shoots are cut away; more vigour is diverted to the fruit and more light is available.

The exact time to prune depends very much on the nature of the season. Last year, when so much rain and moisture prevailed, growth remained soft until late in the season. This year, however, growth is more firm, and the work may be commenced early in the month. This operation consists in cutting back all lateral (side growths) shoots to within four inches of their base. Cross shoots should be cut likewise, but do not shorten leading or permanent branches; pinching the tops of these is sufficient. The shortened spurs often break into growth again from the outer buds, due to the extra supply of sap diverted to that channel, while the lower buds, in many cases, swell and develop into fruit buds. These shortened shoots must, in all cases, be cut further back at the winter pruning to about two inches. Currants and gooseberries also derive great benefit from summer pruning, and where the shoots are growing too thickly they may be cut back similarly. In the winter pruning, however, they need not be cut further unless the spurs are very crowded.

**STRAWBERRIES: PREPARATION OF GROUND FOR NEW PLANTATION.**—Strawberries do best in a strong, loamy soil, but any soil may be made suitable by proper working and manuring. Somebody has said that a strawberry can be grown as easy as a cabbage. It is a fact, the only difference being that the strawberry requires double the attention, but it gives three times, and in some cases four times, the profit the cabbage does. Ground from which potatoes have been dug suits admirably; it is easily got into a fine condition. Make the soil level on the surface, having first applied sufficient manure as the nature of the soil demands. The earlier the runners are planted the better will be the chances of getting a good crop the following season. Plant in lines 28 inches apart, and allow 22 inches from plant to plant. If possible, plant during showery weather, otherwise the plants should be watered after planting. Do not plant carelessly; a ball of soil to each plant is a great assistance. Make the plant firm, especially if the soil be of a light texture; use the feet to make the ground around the plant thoroughly firm. The after-treatment consists in keeping the ground stirred and clean by the frequent use of the Dutch hoe and by cutting off any runners which early plants often throw out.

**OLD STRAWBERRY PLANTATIONS.**—Where these are to be kept on, though it does not pay to keep longer than three years, the ground should be cleared of weeds and runners, and the soil lightly forked between the lines; a dressing of old manure forked into the soil will be of great help to the old plant.

**VARIETIES OF STRAWBERRIES TO GROW.**—Royal Sovereign, the best in cultivation for general purposes; Leader, The Laxton, and Monarch; British Queen, the best late.

**GENERAL REMARKS.**—Young trees this season are remarkable for the small crop they are carrying. Cox's Orange Pippins are good. All the other varieties—and a large number is grown here—are bad. Pears and plums are a failure. Gooseberries were poor, and they have been severely attacked by the sawfly-caterpillar.

## Answers to Correspondents.

**PRUNING FOREST TREES** ("Northern Farmer").—The best time to remove large limbs from forest trees is during the last three months of the year. Great care should be observed in removing the branches if the tree is to be preserved in health and the timber kept sound. Everything should be done to enable the wound

to heal properly. The branch should be sawn off close to the parent stem, and it would be wise to prevent splintering or undue tearing of bark by the weight of the falling branch by, first of all, partially sawing round the under part of the base of the limb. If the cambium region (lying between the wood and the bark) of the wound be smoothed all round with a sharp knife it will facilitate rapid healing. Lastly, the wound should be well painted over with tar to keep out injurious organisms that would tend to cause decay of the wood behind the wound.

It has been found that tarring is of little use if applied to a wound made during the growing season. The moving sap prevents its penetration into the young wood, water finds its way under the layer of tar, and decay is almost sure to follow. If the pruning is done properly the wound will heal up nicely, as shown



Photograph of a properly pruned stem, showing the healthy healing of the wound.

in the accompanying photograph.

**Palms for House Decoration** ("Newry").—You will find the following satisfactory:—*Cocos Weddelliana*, graceful and lasting if ordinary care be bestowed upon it. *Corypha australis*, *Latania borbonica*, *Phoenix rupicola*, *Kentia Belmoreana*, plants of from 12 to 15 inches high; may be grown in quite small pots (2½ inch) if attention be paid to watering and keeping the foliage clean. *Dracenas* may also be used. *D. australis*, *D. fragrans*, *D. Lindenii* and *D. goldiciana* are good.

**GARDEN ANEMONES** ("Ulster").—They will grow in any ordinary rich garden soil that is moist and well drained. There are four distinct sections of these double-flowered anemones, the Dutch, the French, the Irish, or St. Brigid, and the chrysanthemum flowered. The range of colour is very wide—white, pink, rosy-red, vermilion, violet and blue, with all possible intermediate shades. You cannot do better than select the St. Brigid. They will make a glorious display. They are the easiest, too, to raise from seeds. Plants raised from seed sown now ought to flower next summer. Tubers can be bought and planted in September or October. For last query see advertisement pages.

**WEEDS ON LAWNS.**—There is only one way known to us to get rid of weeds on lawns, and that is to persistently pull them out. In the case of the dandelion care must be taken to remove as much of the root as possible, as in this plant the root has the power to produce buds from which new shoots arise.

**PLANT FOR POOR SOIL** ("K.").—We would suggest the Alpine knot-grass (*Polygonum alpinum*) as suitable for the position you describe—poor, dry soil in a sunny corner.

**SWEET PEAS.**—Whatever is the reason of failure in growth it is not due to the cause you suggest. The swellings in the roots sent are normal to peas, and (as explained last month in this column) contain helpful germs that aid the plant in securing its supplies of nitrogen. You will find that the roots of all healthy leguminous plants have similar nodules.

**WATERING POT PLANTS** ("S. O. P.").—The best way is to take the pot out of the vase and plunge it in a bucket of water, allowing it to remain there for a sufficient time to enable the soil to get thoroughly saturated with moisture. Then remove it from the water and let it drain completely before replacing it in the vase. Syringe or wash the foliage occasionally.

**SHRUBS** ("M.").—(1) *Hydrangeas* and shrubby *veronicas* may be propagated by cuttings towards the end of the present month. (2) *Sweet Peas*. See note on removal of flowers under heading *Herbaceous Border*.



## National Rose Society's Show.

At the above show, held last month at the White City, Manchester, Mr. Hugh Dickson, Royal Nurseries, Belfast, won the National Rose Society's Champion Jubilee Challenge Trophy; also first prize for 72 roses, distinct varieties; first prize for 12 roses, one variety, dark, with their magnificent seedling rose Hugh Dickson; first prize for 12 pink roses with Miss Theo. Roosevelt; also medal for best hybrid in show with Hugh Dickson, and medal for best hybrid Tea in the show with the new Lyon rose. He was also awarded the National Rose Society's Gold Medal for a new seedling rose with his superb single white variety Simplicity. This is the first time the National Rose Society's Challenge Trophy has been won by roses grown solely in Ireland.



## Correspondence.

SIR,—On the 19th June last Mr. Howvard, of the creamery at Aughadown, drew my attention to the fact that some shrubs that grew at a place in the neighbourhood in which he lived were infested with caterpillars, and that late in the evenings sometimes a couple, and sometimes three, cuckoos came to feed on them. At about eight o'clock in the evening I went with him to observe this interesting occurrence. When we got to the place, sure enough he pointed out a cuckoo which was evidently feeding on something. We were near enough to plainly perceive the motion of its head and neck as it pecked. Not satisfied with the view obtained from the distance at which we stood (about thirty yards) I crept on all fours to a position within about twelve yards of the bird, and, before it flew, had the pleasure of seeing a cuckoo naturally feeding at close quarters. When the bird had flown I found in the hedgerow three or four of the common spindle trees literally alive with small caterpillars, and on account of the voracity of the creatures very little entire foliage remained on the trees. These caterpillars were partially protected with webs, and in many cases single individuals suspended from the branches by a thin web, which they had power to extend or contract as it suited them to move up and down.

I kept some of the caterpillars in a box with leaves on which they were feeding. I enclose some of the resulting chrysalis and moths. I guessed the moths to be the "small ermine." Would you say authoritatively if this is right? "Lusus."

[Yes, the insects enclosed are small ermine moths of the species *Hyponomeuta cognatellus* (Hb.) that commonly feeds on the spindle tree.—Ed. I. G.]

# PHILIP LE CORNU'S JERSEY

**FRUIT TREES, ROSE TREES, AND CARNATIONS**  
are properly packed free of cost and properly delivered, carriage paid, to Cork, Dublin, Belfast, or Waterford.

Vast quantities of strong, healthy, fibrously-rooted Apples, on the broad-leaved Paradise. Pears, Plums, Peaches, Grape Vines, and Strawberry Plants of superior quality, similar to those which have given so much satisfaction in various parts of Ireland for many years past.

## CORDONS A SPECIALITY.

Before ordering every reader of this paper should write for my Illustrated Catalogue and Planters' Guide.

Testimonial from HUM BLAND, ESQ., Kilquade, Greystones, Ireland :—  
"Your Fruit Trees have been eminently satisfactory—not one died I hope to get more from you this Autumn."

**THE JERSEY  
NURSERIES JERSEY.**

**EVERY WEED DESTROYED**

GARDEN ON  
PATHS, BY CARRIAGE  
DRIVES.&c

**"CLIMAX" WEED KILLER.**

ONE APPLICATION IS SUFFICIENT FOR 12 MONTHS. IT KILLS THE WEEDS ROOT AND BRANCH.

No. 1 tin, to dress 100 sq. yards, 2s. 3d. post free. No. 2 tin, to dress 400 sq. yards, 7s.

Write for our Catalogue of Garden Helps.

**BOUNDARY CHEMICAL CO. LTD. CRANMER ST. LIVERPOOL**

## Encourage Home Industry!

We can supply you with Greenhouses, Poultryhouses, Dog Kennels and all Appliances 25 per cent. less than the foreigner.

## McLOUGHLIN & CO.,

Horticultural, Canine and Poultry Appliance Manufacturers,  
15 Berkeley Street, DUBLIN.

## "NICOTICIDE" Fumigant.

Half-gallon Tin, containing sufficient for 160,000 cubic feet	60/-	Carr. paid.
No. 1 size Tin—1 pint	40,000 "	
No. 2 size Tin—1 pint	20,000 "	
No. 3 size Bottle—8 oz.	12,000 "	
No. 4 size Bottle—4 oz.	8,000 "	
No. 5 size Bottle—1 oz. (sample)	2,000 "	10d.

### FUMIGATORS,

1/- each, for 5,000 cubic feet.

### NICOTICIDE PLANT WASH For Outdoors.

1/2 Pint, 1/2; Pint, 2/-;  
Quart, 3/6; 1/2 Gallon, 5/-;  
Gallon, 10/-

**GOW'S WINTER ALKALI TREE WASH** for destroying Woolly Aphis, Scales, Lichen Moss and Apple Suckers, &c. Half-gallon, 2/6; Gallon, 5/- carriage paid. One gallon will make 20 gallons solution.

**HUNTER & COW, 46 Thomas Street, LIVERPOOL.**



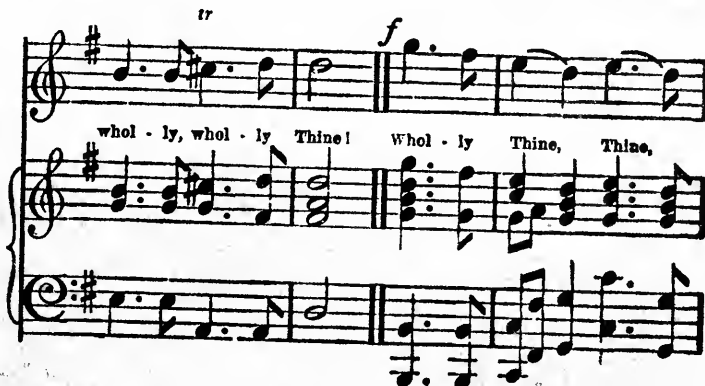
Gow's Slug and Wire-worm Destroyer, Lawn Sand, Daisy Eradicator, Tobacco Powder and Quassia Extract.

Sold in 6d., 1/-, also 2/6 Tins and larger sizes.

INSIST ON YOUR SEEDSMAN SUPPLYING THEM.

## MUSIC PRINTING A Speciality

Estimates  
Free



Superior  
Work

## BOOK-BINDING

"IRISH GARDENING" can be bound at this Office in handsome Cloth Case, gilt. Price, including postage, 3s. 6d.

Office—53 UPPER SACKVILLE STREET, DUBLIN



# *Power's Tested Seeds*

AS SUPPLIED TO  
HIS MAJESTY THE KING

---

PURITY AND GERMINATION GUARANTEED.

---

*Special Quotations on Application.*

---

## **Wm. POWER & Co.,**

Seed Merchants and Nurserymen,

## **WATERFORD.**



SEPT. 1908.

TWOPENOX.

# Irish Gardening

## Contents

	PAGE		PAGE
The Re-afforestation of Ireland . . . . .	133	Late Flowers for Rock Garden . . . . .	141
Notes from Glasnevin . . . . .	135	Roses . . . . .	142
Sweet Peas—Best Varieties . . . . .	135	School Gardening . . . . .	143
Glasnevin in Late Summer . . . . .	136	Royal Horticultural Society of Ireland . . . . .	143
Bulb-growing in Rooms . . . . .	137	Irish Gardeners' Association . . . . .	144
Annuals . . . . .	138	The Month's Work . . . . .	145
Current Topics . . . . .	139	Vegetables for Spring . . . . .	147
Seaside Planting . . . . .	139	Bee-keeping . . . . .	147
Electricity in Plant Culture . . . . .	140	Reports of Shows . . . . .	148

### DUBLIN

PUBLISHED BY IRISH GARDENING, LIMITED, 53 UPPER SACKVILLE STREET.  
OBTAINABLE AT RAILWAY BOOKSTALLS AND FROM NEWSAGENTS THROUGHOUT IRELAND.  
WHOLESALE AGENTS: MESSRS. EASON & SON, DUBLIN & BELFAST;  
GEORGE VICKERS, ANGEL COURT, STRAND, LONDON.



## WINDOW GLASS.

Polished Plate for Shop Windows.

Ornamental Glass of all Descriptions.

Horticultural Glass at Lowest Rates.

## DEATH TO THE WEEDS.

HOYTE'S WEED KILLER.

*Strongly Recommended for the Destruction of Weeds, &c.*

Price, 2s. per gallon; 5 gallons, 1s. 6d. per gallon;  
10 gallons, 1s. 3d. per gallon; Original 40-gallon casks,  
1s. per gallon.

**HOYTE & SON,** The City of Dublin Drug Hall,  
17 LOWER SACKVILLE STREET, DUBLIN.

## BECKER BROS.

PRICES—  
2/5, 2/2, 2/-,  
1/10, 1/8, 1/6,  
1/4, 1/2.

## TEAS.

PRICES—  
2/5, 2/2, 2/-,  
1/10, 1/8, 1/6,  
1/4, 1/2.

8 Sth. Gt. George's St.  
AND 17 Nth. Earl St. **Dublin.**

All Original Illustration Blocks in  
"Irish Gardening" are executed by

... THE ...

## Irish Photo-Engraving Co.



Samples and Prices  
for every kind of  
Illustrative Work  
upon application.

Oriel House, Westland Row, DUBLIN.

FOR

## Flower Pots

AND

## Horticultural Pottery

WRITE

**G. J. OWENS,**  
Brick and Pottery Works,  
**ENNISCORTHY.**

Agents for Dublin and District:—Messrs. E. BROWETT & SONS,  
7 Upper George's Street, KINGSTOWN.

"Has stood the test of a quarter of a  
century."

## THOMSON'S Vine, Plant, and Vegetable MANURE.

Only Medal,  
Edinburgh, 1886.



Gold Medal,  
Edinburgh, 1891.

The result of long Practical Experience. Unrivalled  
for all Purposes. This valuable Manure is  
yearly growing in public favour.

ALSO

**THOMSON'S SPECIAL  
CHRYSANTHEMUM MANURE.**

Perfect Plant Foods.

SOLD BY ALL SEEDSMEN.

Price Lists and Testimonials on application to  
SOLE MAKERS—

**WM. THOMSON & SONS, LTD.,**  
Tweed Vineyard,  
CLOVENFORDS, GALASHIELS, N.B.

## BULBS! For PLANTING NOW. . . For SPRING FLOWERING.

Carriage Free by Post, Tram, or Rail.

TAIT'S "MONSTER" Collection of 1,300 Selected  
Bulbs for outdoor cultivation, 21/-; half, 10/6.

**Hyacinths**—Choice named sorts for Pots and Glasses.

**Hyacinths**—Second size, named in distinct colours for  
Vases, Massing, Bedding, &c., Bright Red, Rose,  
White, Blue, &c.

**Hyacinths**—Mixed, for Beds or Borders of First Class  
quality, all colours.

**Tulips**—Choicest Single Mixed, Choicest Double  
Mixed.

**Crocus**—Mixed Blue, Mixed White, Mixed Striped,  
Mixed, all colours. Large Yellow.

**Narcissus and Daffodils**—Mixed, consisting of all the  
leading and best cutting varieties.

**Anemone**—"St. Brigid," the most beautiful of all the  
Anemones.

**Freesia, Iris, Ixias, Snowdrops, Ranunculus,  
Anemones, Gladioli, Jonquills, Lilies,** and  
every known bulb in cultivation at lowest rates.

WRITE FOR BULB CATALOGUE POST FREE.

## W. TAIT & CO.

Bulb and Seed Merchants,

119 & 120 CAPEL STREET, DUBLIN.

# IRISH GARDENING

VOLUME III.  
No. 31

A MONTHLY JOURNAL DEVOTED TO THE  
ADVANCEMENT OF HORTICULTURE AND  
ARBORICULTURE IN IRELAND

SEPTEMBER  
1908

## The Re-afforestation of Ireland. Some of its Aspects.

By A. C. FORBES, Director Forestry Station, Avondale.

THE term comprised in the first four words of the above heading is familiar to most who take any interest in rural pursuits in Ireland, and recent events have probably brought the subject still more prominently to the notice of the average citizen. Possibly few realise, however, that the problem thus presented is one far larger than is capable of solution in the manner imagined by a very large section of the Irish public. Centuries ago Ireland probably possessed very large tracts of land under timber trees, and there is good reason to suppose that the present scarcity of woods in many parts of the country has been brought about mainly by neglect, and to a certain extent by wilful destruction, of timber trees at all stages of growth. Ancient traditions and the more conclusive evidence afforded by peat bogs indicate that woods existed within the last four or five centuries in districts which are now practically treeless, and the natural inference drawn by the average individual is that such districts only require planting to become once more afforested as in times of old. But attractive as this idea may be to many, a little attention devoted to ways and means quickly convinces one that physical and economic difficulties exist to-day which were unknown when Ireland was a heavily timbered country. Take, for instance, examples of ancient forest growth, which, on account of their remains being actually visible at the present day, appeal more strongly to the forestry enthusiast than traditional instances of lost forests of a different character. The examples referred to are the stumps of Scots pine found on the summits and higher slopes of mountains on the western coast line and oak in almost every inland bog from which the peat has been cut out. Here we might apparently argue, with a good show of reason, are sites which have grown trees in the past, and consequently should grow them equally well in the

future, and planting would appear to be the only step that need be taken to reinstate the original crop. Yet when attempts have been made to bring this desirable state of matters about they have, in the large majority of cases, ended in partial or complete failure. To what is this due? There is little or no reason to suppose that the climate has materially altered within the last thousand years, and although tree-remains in the deeper bogs may date back further than such a period, it is doubtful if the stumps found on hill-sides go back so far. At any rate, there is nothing to suggest climate as the cause, first, of their disappearance; second, of their refusal to grow when planted again; and the only reasonable conclusion to which one can come is that the physical and chemical condition of the surface has changed, and that time and artificial treatment are necessary to restore it to its original fertility. One consequence of this is, therefore, that a very large area of land partially or entirely covered with timber in early times, and which could be easily spared for growing it again, is rendered useless for that purpose by changes which are not always easily accounted for by every day theories, whether of an empirical or scientific nature.

But a greater obstacle to reafforestation than the physical one alluded to is the economic changes in the utilisation and ownership of land. In place of large tracts of land owned by a few individuals, and used for the feeding of scattered flocks and herds, we now find the country split up into farms and holdings of a few acres each, and only in the poorest districts is it possible to secure areas of several hundred acres without great difficulty and expense. Many forget that the finer and more valuable forests, the disappearance of which they deplore, were standing on land of great natural fertility, and now forming the richest agricultural land in the country. To reafforest this, even on the most

limited scale, is consequently out of the question, whether from an economic or a political point of view. Any planting on a large scale must take place on a class of soil and situation which is by no means uniformly distributed throughout the country, and if the work of reafforestation were confined to this alone many parts of Ireland would be more destitute of trees in the future than they have been in the past.

The urgent necessity for finding some solution of this problem has been prominently brought to the front by the operation of recent Land Acts, which have converted large numbers of occupiers of holdings into owners of the latter. Considerable tracts which formerly formed part of large estates, the owners of which had both the means and the inclination to plant and maintain woods, plantations, and hedgerow trees, have now been split up into small properties, owned by men whose means are often limited and whose inclinations run more in the direction of agriculture and stock-rearing, with their more immediate returns, than in tree-planting for the improvement of the landscape. The smaller the holding the less inclined is the holder to allow trees to take up space on it, and with an increase in small holdings a decrease in trees will take place unless means are taken to preserve and renew them from time to time.

A careful survey of the whole situation convinces one that the individual landowner alone is in a position to plant and preserve trees in such a manner as to enable the country to present a well-wooded appearance in all parts, excepting perhaps those in which physical difficulties exist. Government action may, if funds are provided, raise the percentage of woodland to a higher figure than is now the case, but the æsthetic reafforestation of Ireland or the conversion of tame and monotonous landscapes into leafy prospects can alone be accomplished by individual effort and action throughout three-fourths of the country. Shapely park and hedgerow trees, avenues, clumps, belts and screens, and the innumerable combinations of tree-growth, are most potent factors in beautifying the land generally than large forests in a few districts and an entire absence of trees elsewhere. While the smallest holder must be allowed to make the most of his land for agricultural purposes, the owners of medium and large-sized farms should, however, be encouraged in every way to preserve such timber as they now possess or to plant in moderation where such is deficient. The question is, how should such encouragement be given so as to lead to practical results? The average farmer has usually his hands full of ordinary farm work, and can find little time to spare for tree planting, while the question of expense has also to be faced. To such several advantages must

be provided before planting can become popular in any form. Cheap trees of a suitable size and condition, consisting of species adapted to the soil and situation, and assistance or instruction in planting, must all be provided before the average farmer will take the trouble to turn the odd corners and waste places of his farm to account by tree-growing. Given such advantages, the example set by a few enterprising men will gradually be followed, not perhaps by all, but certainly by a fair number, and something done to give the country a warm and sheltered appearance. Already several county councils have adopted schemes of assistance on some such lines as the above, but further developments are necessary if much progress is to be made. Trees of the correct size and in just the right condition for successful transplanting to ordinary farm land are not always easily obtained. In the first place, public nurseries in Ireland are few and far between, and the removal of trees from them to distant spots is a tedious and expensive process. Then, again, the average nurseryman has to cater for a variety of customers, and cannot always find opportunities of raising the exact class of tree which is wanted for this work, while the demand for such hitherto has been small and irregular. Deficiencies and obstacles which now hinder the work of farm tree-planting might be largely met and removed by small local nurseries maintained by county councils in different parts of their respective counties for the purpose of growing trees suitable for the average farmer and smaller landowner. Such nurseries would not, of course, be of an elaborate nature, nor aim at producing anything beyond a limited variety suited to the district, and likely to be of use as well as ornament. An important feature of them would be the facility they would give of speedy planting after the trees had been lifted, and thus avoid that more or less inevitable drying of the roots of trees which takes place with ordinary packing during transit by rail, and is a frequent cause of failure. Trees supplied from these nurseries at cost price, even, could not be much cheaper than those now obtainable from public nurseries, but their condition when received by the planter should be such as to ensure all reasonable success, whether in the hedgerow, avenue, or shelter belt. The existence of nurseries in a district would in itself be suggestive to the average holder, and remove that idea of imaginary difficulties which now surrounds the whole subject of planting in the lay mind, and does much to prevent any attempt being made to inaugurate such work in the smallest way.

The planting of road-side trees by district councils is another branch of work which would be greatly facilitated by nurseries of this kind.

All Irish roads are not adapted for tree-planting, and it is not suggested that it should be carried to extremes in any case. But the environs of many of the smaller towns and villages in the country would have a much better appearance if the main roads leading into or out of them were planted for short distances with such trees as limes, chestnuts, or others of that nature, and examples of such planting may be occasionally met with even now.

Whatever the means employed to assist the average individual planter of the country, however, it is by no means likely that the present tendency to cut rather than plant will be reversed for some years. In many cases where it has been carried to excess a disposition to plant may show itself, but public opinion and the gradual education of the new race of proprietors must be the chief agencies in leading to re-forestation on the lines referred to in this article.

## Notes from Glasnevin.

### Annual Delphiniums.

**V**ISITORS to these gardens during the months of July and August could not have failed to notice the very remarkable effect made by the annual delphiniums in the herbaceous border. This seed came from Vilmorin, Andrieux & Co., Paris, under the name of *Delphinium Ajacis carminea*. It was sown in the autumn in boxes, pricked out when fit to handle, and planted in rich ground in the spring. The effect was really beautiful, and the difference between the autumn sown seed and the spring sown is worthy of note. There was also a pure, white variety, and another shade of pink.

Among other autumn sown annuals was a very good form of the white Candytuft. This seed came from Sutton, of Reading, as White Spiral. It was very fine, and well worthy of trial by those who have not already done so.

As well as the foregoing plants, the *Verbascums* played a very important part in the collection, and among them was one lately named by Kew, as *Verbascum leianthum*. Seed of this species was sent out by Mr. T. Smith, of Newry, some years ago, who obtained it from Cataman. Last year the plants made wonderful growth, some of the leaves measuring four feet long, by two feet broad, and this year they threw up tall, stately flower stems, the tallest of which was fourteen feet high. The

yellow flowers, although small, are borne in great quantity. These good species are well suited for bold massing on the borders of shrubberies.

R. M. POLLOCK.

## Sweet Peas—Best Varieties.

**E**ACH September for the past two years I have written a short note under above heading, hoping to promote a useful discussion not only on the best varieties of sweet pea but also on the preparation of the ground, manures, and time and method of sowing. That the sweet pea is now the most largely grown and popular of annual flowers there can be no doubt, and I hope successful growers will help others less fortunate in this respect by giving in IRISH GARDENING a short account of how they grow sweet peas, with the names of those varieties they would include in the best dozen for exhibition and garden decoration.

The following fifteen varieties, if well grown, should give a wide range of colour and a nice selection for those intending to compete at shows in stands of twelve varieties:—Helen Lewis, orange pink; Mr. H. Sykes and Paradise, shades of pink; George Herbert, John Ingman (as the latter often comes very mixed I prefer George Herbert, one of the largest peas grown), carmine; Prince of the Asturias dark maroon; Menie Christie, mulberry; Etta Dyke or Nora Unwin, white; Clara Curtis, primrose; Frank Dolby, lavender; Elsie Herbert, white, pink edge; Constance Oliver, salmon pink; Mrs. H. Bell or Mrs. C. W. Breadmore, buff

shading to outside of petals, violet and pink; Marjory Willis, mulberry red; Helen Pierce, marbled blue, and Queen Alexandra, scarlet. Many old favourites will be missing from above list, and what must strike all readers is the great number of waved varieties—viz., thirteen in fifteen varieties, but it only bears out what I wrote twelve months ago when I said it was only a question of time for waved flowers to oust all others.

A couple of grand, new varieties to be sent out the coming year are—Nancy Perkins, a waved Henry Eckford; George Stark, waved Queen Alexandra; while St. George (sent out last year at four seeds 1s.), though small, must be largely grown, being such a brilliant waved orange crimson.

W. T.



A NEW garden tray has been registered by Messrs. Wilmot & Co., Bristol. The tray is made of galvanised sheet steel, and is therefore proof against rot.



Photo by

[G. O. Sherrard.

CLUMP OF ROSE-PINK ANNUAL LARKSPUR IN MIXED BORDER  
(Botanic Gardens, Glasnevin).

## Glasnevin in Late Summer.



NE might go a long way to find a prettier piece of garden scenery than that presented by the bit of the Tolka valley inside the Botanic Gardens in the vicinity of the ornamental water. Let the visitor seek out the big beech near the Bamboo Walk, and repose for a time on the seat placed beneath its wide-spreading top. In the

foreground is the miniature lake well nigh choked by the summer's luxuriant growths of common reed, bull-rush, horsetail, white water lily, and other aquatic. Its margin is fringed with a mixed assembly of moisture-loving species, among which are conspicuous the purple and the yellow loosestrife, meadow sweet, and wild angelica. On the islet, in the centre, grow tall bamboos, giant spiraeas, great gunneras, grey tamarisc, and cotton thistle. Beyond, the view embraces a most interesting collection of trees, mostly conifers, notably a fine, rugged old specimen of *Pinus pallasiانا*. Among others may be discerned *Abies numidica*, *A. firma*, *Picea pinsapo*, *P. omorica*, the deciduous cypress (*Taxodium distichum pendulum*), and the cedar of Lebanon (a very fine specimen of this is to be seen a little further off, in a field belonging to the convent, on the opposite side of the river). The picturesque of their grouping and the fine contrasts of foliage tints are both heightened by having for a background the great billowy masses of silver foliage of the willows that have their station on the banks of the Tolka.

Moving westward, many other interesting trees come into view—*Juniperus recurva*, the tulip tree, the cut-leaved alder (a fine old specimen that a casual glance might pronounce to be an oak), the fern-leaved beech, and its relative *Zelkova crenata*. The further end of the pond presents a less wild, but not a less interesting, feature. Here are gathered several choice *Nymphaeas*, the giant *A. collossea* and *A. gladstoniana*, the tiny *N. laydekeri* *rusca prolifera*, and *A. pygmaea helvola*, and the wine-coloured *N. atropurpurea*. The view from this end, looking east, is superb. But a complete and leisurely circuit should be made of the water; every step will reveal fresh and charming combinations, and a couple of hours could hardly be more profitably spent than in this the beauty spot of the gardens. Should the botanical visitor pause to compare this miniature piece of water with the "Lake" at Kew, he will note with satisfaction the untarnished condition of the herbaceous vegetation in comparison with that in the sister establishment, where crowds of ducks, geese, and other water birds are permitted to foul the grass and break down the taller growths, and where water lilies are only saved from destruction by unsightly rings of wire netting. Now and again a red-beaked coot may swim out from its haunts among the tall reeds; this is the largest water-fowl that has an abode here. The smaller land birds, however, find here a sanctuary, and song thrushes are abundant. (On a clear, still evening last winter one had the pleasure of watching from the distance of a few yards, and in full view of the bathers, as many as eight thrushes at one time enjoying their bath in the shallow of a bit of submerged bank.) One must not overlook the little railed-in bog garden filled with such plants as bog myrtle, flag irises, spiraeas, rushes and sedges, royal fern, the grass of Parnassus, the marsh hellebore, *Primula* and *Mimulus* spp. There is also the weir with its rushing waters overhanging by yew and laurel. Overlooking this little paradise is the Rock Garden, from the higher part of which the view looking down into and across the valley is very fine indeed.

So far these notes have only had reference to a

comparatively small division of the gardens. Westward lies the new arboretum, where the young trees are being trained "into the way they should go" by diligent use of knife and Standard tree pruner, and these in the hands of those who may be neither artists nor physiologists. The uniformity of outline and the brush-like density of branches resulting is most striking in the winter time when the leaves have fallen. They suggest as their model the "wooden" trees of the *Noah's Ark* familiar to childhood. But even at Kew we have seen this important and highly technical operation performed by army reserve men, whose ideas on the subject one hardly expects to be scientific. One is inclined to ask—Did "the trees of the garden" share with man the fall, or did the charge to our first parents to "dress and keep" imply an earlier instance of original sin in the vegetable world? (Except that their natural instinct for roaming or an occasional propensity to indulge in a meal off their visitors may be restrained we do not usually find the occupants of a zoological garden interfered with in their healthy, natural development.)

The large and representative collection of herbaceous plants, *naturally* classified, are arranged in a series of informal beds (not perhaps quite so convenient for the student as the parallel beds obtaining elsewhere), and are further relieved by a wide bisecting walk, having on either side a wide border filled with a brilliant assembly of hardy and half-hardy garden flowers.

The various glasshouses at any season repay a visit—the water house (containing the *Victoria regia*), the succulent houses, the cool fernery, the long range embracing cool central and stove, the orchid house, the palm house and the camellia house. In the palm house are several fine cycads, which are best seen from the gallery. In none of these, if we except the succulent house, has the system of planting out in borders been adopted, but probably the structures here, with the one exception alluded to, belong to an older order of things, and do not lend themselves to this system of cultivation.

There is on sale at the gate a little guide, containing a plan of the gardens, which should be of use to visitors. There has also been recently opened, just outside the gate, a refreshment room; but once outside the gardens visitors, it would seem, prefer to go further and seek elsewhere what, were it procurable within the gardens, might have allowed them to prolong their stay and to resume, with revived interest, their inspection of the extensive collection.

As the visiting committee had long recognised the desirability of providing facilities for refreshments it does seem a pity it was not carried out in a manner that would meet with the appreciation of the many who must travel a considerable distance to reach the garden. Something in the way of the pavilion at Kew might have taken the place of the old band-stand now transformed into an unsightly shelter, or rather cave, of the wind; for being open on two opposite sides one may here at all times enjoy a draught.

W. B. B.



THE man who has planted a garden feels that he has done something good for the world. He belongs to the producers. It is a pleasure to eat of the fruit of one's own toil, if it be nothing more than a head of lettuce or an ear of corn. To dig in a mellow soil—to dig moderately, for all pleasure should be taken sparingly—is a great thing. One gets strength out of the ground as often as one really touches it with a hoe. It is not simply beets, and potatoes, and corn, and string-beans that one raises in his well-hoed garden: it is the average of human life. There is life in the ground; it goes into the seeds; and it also, when it is stirred up, goes into the man who stirs it. The hot sun on his back as he bends to his shovel and hoe, or contemplatively rakes the warm and fragrant loam, is better than much medicine.—*Warner*.



## Bulb-growing in Rooms.

FOR home decoration or for school rooms in winter bulb cultivation offers a delightful scope for simple yet effective gardening. Fancy bowls or vases for the one and big earthenware jam-jars for the other will provide the means for holding the special "soil" needful in this particular kind of culture.

Ordinary fibrous peat, well rubbed down into a powder and mixed with ground shells or shell sand, will afford an excellent rooting medium. Before filling the vessels with this mixture it ought to be thoroughly wetted with water (it will take about a gallon of water to each half bushel of the mixture). If it is inconvenient to obtain these materials, then washed gravel will answer admirably. As the vessels are unprovided with drainage holes, it will be wise to place a few pieces of charcoal at the bottom of each, to absorb any injurious gases that may be produced through want of attention in watering.

As the bulbs themselves contain a sufficient amount of food to support the plants until the end of the flowering period, the main function of the soil is to hold air and water. The roots are needed to absorb water and force it up to the growing shoots, while air is needed to keep the roots in health and activity. Therefore, while it is necessary to keep the soil damp, care must be taken not to have it saturated with water, as then free circulation of air throughout the soil will be prevented, and an unhealthy condition established. This is an important point to remember.

Plants lose water in the form of vapour from their foliage, so that vigorous, young leafy shoots require an active and well-developed root system to cope with the daily loss of moisture to the surrounding air. This is why that in the case of bulbs growing naturally in field or garden a strong root system is developed before even the tip of the shoots appears above ground. Therefore, after planting the bulbs in the pots or bowls they must not be given fresh supplies of water until the shoots begin to appear above ground (unless of course the soil appears to be drying up), and, furthermore, we must not attempt to force the growth of the shoots, but give good time and opportunity for the roots to get well developed first. This is another point to particularly remember.

The bulbs must be planted firmly, but not rammed, and as there will be a tendency for the bulbs to rise in the soil as the roots begin to elongate, some precaution should be taken to prevent them being pushed out. If the bulbs are planted in common pots, it is an excellent plan to place these on a gravel or cinder surface and cover them with ashes or coconut fibre; this will induce

root growth, and also help to keep the bulbs in position during these early stages of development.

If ordinary flower pots are used, then it is best to plant in regular soil made up of fine garden mould mixed with some *well-decayed* organic substance, such as leaves or farmyard manure and sharp sand. Provision must of course be made for good drainage in the pots. Quite a variety of bulbs can be grown in this way in the home. The following may be mentioned:—*Hyacinths*.—The Early White Roman hyacinth, if planted every fortnight or so, will give a good succession of blooms. Do not select double-flowering varieties. *Narcissi*.—The paper-white *Grandiflora* Polyanthus will flower by Christmas if planted at once. Amongst the daffodils there is a large selection, as practically all of them will succeed in pots. Amongst the earliest and best are Emperor and Golden Spur, Self-yellows, and Horse-

field, a bicolor, while *Narcissus Johnstoni* Queen of Spain is a charming variety to use. Nor must we forget to mention *Barri Conspicuous*, *Ornatus* (Poet's Narcissus), and members of the *Poetas* group.

Crocuses, snowdrops and tulips may all be used—of the latter, the Duc Van Thol section gives the earliest blooms. Tulips require care in the regulation of water to the roots; they must be kept moist, but if the water is allowed to become stagnant the plants suffer. Then there are the Spanish irises, freesias, scillas, and muscari to choose from. The accompanying illustration shows what a pleasing decoration may be had by planting in fibre in a vase a few bulbs of such a common plant as grape hyacinth. Personally, however, we would select for such simple flowers a bowl less elaborate and decorative in workmanship. The freesias, if potted now, will form their delightful sweet-scented flowers by next



GRAPE HYACINTHS (*Muscari*) IN FIBRE.

March. Those who intend to take up this most fascinating pastime will do well to consult bulb catalogues, in which full, descriptive lists will be found of the different varieties suitable for this particular form of gardening.



THE DAISY BUSH.—For seaside gardens we specially love the Daisy Bush (*Olearia haastii*) of New Zealand. Planted in the open, and fully exposed to sun and salt-laden breezes, it forms during July and August, when covered with its profusion of white, daisy-like blooms, as pretty a little shrub as ever the villa gardener may desire. Even when not in flower, its box-like evergreen foliage makes it a decorative plant when grown in the situation that best favours its growth and development. Its near relative, *O. macrodonta*, with large, holly-like leaves and silvery under-sides, is beautiful too, but it is rather a tender plant, although it can be safely grown in many parts of Ireland.





Phot. by]

[G. O. Sherrard,

CLUMP OF WHITE ANNUAL LARKSPUR IN MIXED BORDER  
(Botanic Gardens, Glasnevin).

## Annuals.

### Their uses in General Decoration.

By G. O. SHERRARD.

ANNUALS as a class possess great beauty of colouring and a lightness and elegance of form such as are not found in many perennial flowering plants. There are amongst them species which can be used for almost all purposes in garden decoration. For boldness of effect in the mixed border or shrubbery there are few plants which can excel the giant sunflower (*Helianthus annuus*). Clumps of sweet peas or of the taller varieties of the annual larkspur make a lovely feature in the border, and can be grown so as to flower when many of the best perennials are out of bloom. For edging, for occupying spaces in the border that had been filled with bulbs in the spring, or for forming masses by themselves, the smaller growing species are invaluable.

It is perhaps as an aid to the colouring of the mixed border that annuals are most useful to us. They should never be substituted for the perennials but employed to supplement their effect. There comes a time in the middle of summer, usually between the second week in July and the second week in August, when many of the perennials are not in flower. The reason for this is that a large number of herbaceous plants flower in June, and many more in autumn, but those which bloom between these periods are not so numerous. Also, about this time yellow colour tends to predominate among the flowers of the perennial plants, and the effect of too much yellow in the border must be corrected by the use of flowers or other hues. Annuals, with their many colours, fulfil this purpose excellently, and also serve to tide over the lull in the blooming of the perennials. I have seen a mixed flower border all aglow with colour at the beginning of August, and found the plants which contributed most of it to be clumps of rose-coloured and white annual larkspurs, sweet peas planted in clumps of one colour, the white and pink varieties of *lavatera*, and masses of that

brilliant little flower *Nemesia strumosa*. All these annuals had been planted or sown in the spaces between the numerous clumps of herbaceous perennials which the borders contained, and yet if they—the annuals—had been removed at that particular time the border would have been left almost devoid of brightness.

The flower beds cut in the grass, which are still a familiar feature in many gardens, are often filled with stocks and asters. Fortunately this style of bedding is dying out, and a more informal grouping of plants is taking its place in popular favour. Formal flower beds cut in a lawn do not show annuals off to the best advantage.

The cultural requirements of annuals are simple. They like a deeply dug and well pulverised soil, which should be made fairly rich with manure; and the plants themselves should be given room for their full development. Thinning must be

practised if annuals are to be grown with success. Growers have realised this in the case of sweet pea, which is now planted with a foot of ground between each plant in a row, or with one to six plants in a clump instead of the twenty or thirty of a few years ago.

The half-hardy species must be raised in heat in the early spring, and planted out when all danger of frost is over, but the hardy kinds may be sown in the open ground in spring or autumn. Autumn sowing for some annuals has decided advantages. The plants flower earlier in the season and make strong specimens which remain a long time in bloom. Care must be taken not to sow the seeds too early in the autumn, or the plants will become too soft and sappy to stand the winter; the end of September or the beginning of October is quite soon enough. Also, the plants must not be allowed to get too crowded before winter comes on, and pests must be guarded against. These latter, slugs in particular, are very destructive during the winter months, and it is often advisable for this reason to grow the plants in boxes or frames, where they can be more easily protected both from the slugs and from very severe weather. Shirley poppies, larkspur, sweet pea, nemophila, bartonia and Virginian stocks are all suitable for autumn sowing; the poppies, of course, must be sown where they are to flower.

It is not within the scope of this article to give a long list of all the annuals which are worth growing, but mention may be made of a few of the best.

The annual larkspurs possess great beauty, especially the tall rose pink, white, and dark-blue varieties; these when sown in late autumn make bold clumps four feet high by the following July, and are then covered with bloom. Sweet peas have gained an unique position amongst annuals. They appear to the best advantage when sown in clumps of one variety each.

The Swan River daisy is a dainty little plant, about one foot high, with blue flowers like miniature cinerarias. *Phacelia campanularia*, also a foot high, has bell-shaped flowers of a deep rich blue. *Nigella*, or *Love-in-a-Mist*, has pretty little pale blue flowers set in a delicate tangle of greenery. *Mignonette* should be grown in every garden for its sweet perfume.

## Current Topics.

By PETER BROCK, Horticultural Instructor, Co. Fermanagh.

**D**URING September some of the most important crops of fruit and vegetables and summer bedding or grouping of plants for effect are seen at their best. It is, moreover, the best month in the year for gardeners or fruit growers who keep well ahead of their work to take some holidays and visit the gardens or fruit grounds of some of the most successful cultivators. Gardeners, as a rule, seldom indulge in the recreation of holidays further than to visit some annual flower shows. This is a mistake. No matter how zealous and well posted with literature the gardener may be, considerably more information may be derived from seeing results and how they are achieved than reading about them. The results of various methods of pruning and cultivation, also different varieties, stocks, soils, and the harmonising of colours, are all matters of absorbing interest and easily detected by the practised eye on the alert for hints in the particular hobby. A small place may sometimes be found to excel in the production of plants, fruit, flowers or vegetables. It is, therefore, advisable to visit as many places as possible, as the small ones may contain something very interesting in a particular line. Gardeners are very communicative to each other, always ready to explain how they have succeeded with certain remedies for fungoid and insect pests; the results with different kinds and proportions of artificial manures on crops under varying conditions of soil and seasons. The glorious season we have had up to this justifies the expectation that we may see apples and pears at the forthcoming October and November shows which have seldom, if ever, been equalled. Chrysanthemum growers will now be anxious to ascertain how their own plants compare with those of rivals at coming shows. The spells of great heat will doubtless have rushed in many buds too soon: still the development of the buds can be partially controlled by feeding on removing the plants to a warmer or cooler position. The grower who succeeds with some new and difficult variety to grow to perfection will invariably explain what suits it best, the time to put in the cutting, how it should be potted, loose or firm, in rich or poor soil, when to begin stimulative feeding, time to pinch to get the desired bud that will produce a perfect flower on a certain date. Such an interchange of opinions in connection with horticulture tends to make the very best of men better. Employers generally benefit substantially by sending their gardeners on a holiday tour of inspection of other places. Apart from the new blood in the shape of cuttings picked up, the outlay will be amply repaid in the knowledge acquired.

This is the dormant season for the daffodils which adorn our gardens, lawns, and woodlawn in spring. It is, however, the best month in the year to procure and plant new varieties. In doing so, consult the bulb catalogue of your seedsmen, and through it you will generally make a better bargain than with the foreigner. Residents in Fermanagh had an experience of this last spring, through an auction of Dutch bulbs held at Enniskillen last September, where Madame de Graaff was put up and sold at 3s. per doz., but which, on flowering, turned out to be Grandis. Madame Plemp sold at full commercial

value, but the contents turned out to be Princeps. Glory of Lieden produced Emperor. The whole lot sold at high prices, but turned out such a fraud that a similar auction of Dutch bulbs could not be carried out near this town for some time to come.

## Seaside Planting.

**A** READER asks for information as to suitable shrubs and trees for planting by or near the seaside. There are quite a number that may be so used. For example, the Sea Purslane (*Atriplex halimus*) is a shrub that will grow even in muddy places quite close to the sea, while Sea Buckthorn (*Hippophae rhamnoides*) loves damp sand. The Bladder Senna (*Colutea arborescens*), a beautiful shrub, will thrive in dry sand, while the Spanish Broom (*Spartium junceum*) will flourish almost anywhere. If a rambler is wanted choose *Forsythia suspensa*, or if a shade-loving shrub is required the Spurge Laurel (*Daphne laureola*) will serve admirably. One of the most useful seaside shrubs is the Tamarix (*Tamarix gallica* and *T. tetrandra*). It is delightful planted in groups or in the form of a hedge, the delicate foliage and graceful feathery plumes of pink flowers producing a charming effect (one wonders why such handsome shrubs are not more commonly planted in inland gardens). Many of the spiraeas, too, may be used; a comparatively new species, *S. Aitchisoni* is said to be particularly suitable for decorative purposes. One of the easiest shrubs to propagate and establish is the elder (*Sambucus*). *S. canadensis*, although seldom seen, is specially useful, as its handsome flower clusters are produced in great profusion all through September. Mention may also be made of that ever useful evergreen *Aucuba japonica*, the common and Portugal laurel, *Cotoneasters elegans*, privet, spindle tree, daisy bush, mock orange, flowering currant, wild roses, cut-leaf bramble, *Skimmia japonica*, furze, and species of weigelas.

Useful trees are Austrian and Corsican pines, thorn, mountain ash, Siberian crab, and *Cupressus macrocarpa*.



Photo by]

NEMESIS STRUMOSA SUTTONI.

[G. O. Sherrard,

Flowers pale yellow, orange and crimson.

# "IRISH GARDENING."

AN ILLUSTRATED MONTHLY.

OFFICES—53 UPPER SACKVILLE STREET, DUBLIN.

**Publishing Date.**—First day of each month.

**Subscription.**—3/- per annum, post free.

**Editorial.**—All Editorial Communications, copy, and photographs should be addressed to "The Editor."

**Business Communications.**—All letters regarding Subscriptions, Advertisements, and other business matters must be addressed to "The Manager."

**Wholesale Agents.**—Newsagents will please send their orders for Copies to either Messrs. Eason & Sons, Dublin and Belfast; Messrs. M. H. Gill & Son, Dublin; Messrs. Robb & Co., Belfast; or Messrs. News Bros., Cork.

**London Agent.**—Mr. G. Vickers, Angel Court, Strand, London.

**Remittances.**—Postal orders, cheques, &c., should be crossed and made payable to The Manager, "Irish Gardening."

## Electricity in Plant Culture.

THE application of electricity to plant culture has often been the subject of experiment. The directing idea in most of the earlier experiments was to increase the amount of light available for purposes of starch making, and thus, by raising the quantity of manufactured food, force the pace of growth in the crop. It has been shown, for example, that lettuces may be so forced, and that the flowering period of Easter lilies and certain other plants can be hastened under this artificial light treatment. But the method as it stands at present is not likely to be largely adopted by commercial growers.

Another idea put to the practical test by experimenters was to charge the soil with electricity by sending electric currents among the roots of a growing crop, by the use of sunken metallic plates connected together by conducting wires. But the trials gave little encouragement.

A third idea with respect to "electro-culture" was to charge the air with high-tension electricity in the vicinity of the growing plants; in other words, to imitate as far as possible the atmospheric conditions that result in the phenomenon of the aurora borealis. The prolific crops of grass and grain obtained in the short arctic season, and with poor cultural treatment, suggested the influence of a factor apparently absent in more southern regions. In a recent article contributed to *Nature* (Aug. 6th) by Sir Oliver Lodge an interesting account is given of experiments carried on along these lines, first, at the Golden Valley Nurseries near Bristol, and later upon a large scale at a farm in the neighbourhood of Evesham.

Before describing the experiment the writer, who is, of course, one of the highest living authorities in physical science, remarks that

"It can hardly be doubted that the electrification of the air has some effect on growing plants. For it has been found that under the influence of ultra-violet electrified plants can give off electricity into the air from the leaves: and the fact that the upper air is normally

electrified, relatively to the soil, must cause all plants to be electrified also, so that in all probability they are in a constant state of slow electrical discharge which becomes more rapid when the sun is up. In what way this discharge of electricity from their growing tips and hairs and surface generally really acts must be studied and reported on by physiological botanists, but it is natural to suppose that it cannot be without influence, and reasonable to think that that influence may be beneficial—a hypothesis which direct experiment confirms."

The experiments therefore have for their object the intensification or extension of natural processes already operating to a greater or less extent in our gardens and fields. The method adopted is to run thin conducting wires supported on poles over the crops at a height not interfering with the passing of loaded vehicles. Every day for some hours high tension electricity is switched on to the system, and leakage immediately sets in. It is said that the stimulating action of the electrification can even be felt by anyone walking underneath the wires. The whole power required for the nineteen acres under experiment is supplied by a two-horse oil engine. The crop experimented upon was wheat, and the increase in bushels per acre of Canadian Red Fife in the electrified over the non-electrified area in 1906 was 40 per cent., and last year 29 per cent. It is stated that the electrified wheat samples were brighter and better, and that the plants tillered more freely than in the non-electrified control area.

The results are most instructive, and we await further developments of the system with much interest.



ANNOUNCEMENT OF NEW BOOKS.—Messrs. T. C. and J. C. Jack, of Edinburgh, intend to issue in seventeen monthly parts an illustrated work entitled "Beautiful Flowers and How to Grow Them," by Messrs. Horace and Walter Wright; and the Caxton Publishing Co. are preparing a comprehensive and lavishly illustrated "Book of Nature Study" under the able editorship of Professor J. Bretland Farmer, which will be published in six volumes at 7s. 6d. each.



### SILVERY SEPTEMBER.

AH! grieve not when September  
Comes, with the wheaten sheaves,  
And later winds dismember  
The Midas-fingered leaves!  
Be not for gazing dumbly  
Upon the branches bared;  
Rise! greet her, tall and comely,  
Blue-eyed and silver-haired!

\* \* \* \* \*

She'll give you for your ardour  
Rose moons above dun corn,  
A white-sailed cloud-armada,  
Sun-tarnished fields new-shorn;  
And bid you to remember  
The Springs as yet untold  
Until the last September  
When we ourselves are mould.

## Late Flowers for Rock Garden.

By R. LLOYD PRAEGER, B.A.

TO keep the rock-garden bright during the middle and latter part of the summer is somewhat of a problem. The season opens as early as January with the *Burseriana* Saxifrages, and as the days lengthen little patches of colour increase in number and variety, till in May and June the place is ablaze with flowers of every hue. But as July comes in there is a sad relapse. The Crucifers—Alyssums, Drabas, Arabis, and so on—are almost all gone. The *Kabschia* Saxifrages and most of the silvers are long a thing of the past; the mossy Saxifrages look weedy and parched; the Aubretias look quite dreadful. Pinks of all sorts are rapidly going, and the earlier Campanulas, that have for weeks been a blaze of blue, are vanishing likewise. By the time August comes many a rock-garden is as bare as the Libyan desert—a mere arid waste of stones and dull, green flowerless tufts. And yet it need not be so. A little care in selection will give us a cheerful display of colour right through the hot season; and though this can never equal the glory of May, it will carry us safely through till the delicate white blossoms of *Saxifraga Fortunei* remind us that winter is close upon us.

First of all, there are various excellent plants that, commencing flowering in spring, are our comrades right through the season. The Erodiums, such as *E. Manescavi*, *E. hybridum*, *E. olympicum*, *E. trichomanesfolium*, are most pleasing in this respect. Likewise, some of the dwarf Toadflaxes—for instance, *Linaria alpina* and its lovely *rosea* variety, *L. antirrhinifolia* and *L. pilosa*; and for long-continued profusion of bloom *Viola munbyana* and *V. cornuta* and its varieties are hard to beat. The Flaxes, too—*Linum nyrbonense*, *L. austriacum*, *L. monogynum*, &c.—and the little Sisyrinchiums flower month after month, and their slender forms are very delightful in the rock-garden.

Of good July flowerers, there are plenty to choose from. The dwarf St. John's-worts deserve a high place—*Hypericum repens*, *reptans*, *empetrifolium*, *olympicum*, *fragile*, and so on—all willing and showy little plants. Many of the smaller Campanulas, too, are at their glory in July—*C. portenschlagiana*, *C. turbinata*, *C. garganica*, the lovely *C. barbata*, and many more. Then most of the creeping Thymes form carpets of white, pink and crimson; and the invaluable *Polygonum Brunonis* (*affine*) continues from July into the late autumn. Many of the smaller Sedums, such as the golden *S. sexangulare* and the pinkish

*S. glaucum* are a blaze of colour in July; the quaint *Culcovelaria polyrrhiza* is at its best; and *Gypsophylla repens* is very valuable, providing a spray of delicate white bloom long before the better-known *G. paniculata* comes in, and remaining long in flower. Among miscellaneous July-flowering treasures may be also mentioned *Leucnrium pyrenaicum*, *Calamintha alpina*, *Cyananthus lobatus*, *Erigeron glaucus*.

In August we have still many good plants to fall back upon. The larger Sedums are in now, and perhaps of any single genus they are the most useful at this season. Of the taller species the many forms of *S. Fabaria* and *S. Telephium* are very valuable, while the bushy *S. populifolium* and the spreading *S. Eversii* and *S. spurium splendens* are quite delightful plants, which everyone should grow. The earlier Sea-lavenders, such as *Statice bellidifolia* and *S. occidentalis*, provide a pretty bit of colour. Then there are some grand August Campanulas—the lovely *C. isophylla* (which is quite hardy here, though mostly seen indoors), and its even better variety *Mayi*; *C. longistyla*, *C. carpatia*, the various *rotundifolia* forms, and the lovely little true *C. Wilsoni*. The dwarf *Oenotheras* are now at their best, and *O. taraxacifolia*, *O. missouriensis* and the others open in the evening their great white or yellow blooms. The large order of the Labiatae next provides a number of very pretty, if not extremely showy, August-flowering species—*Micromeris*, *Teucriums*, *Scutellarias*, *Dracocephalums*, *Origanums*, *Satureias*. If I were asked to name a few of the best, I should say *Micromeria piperella*, *Scutellaria baicalensis*, *Origanum pulchellum*, *Satureia pygmaea*—all neat, little bushy plants, willing and free. Then we can help things greatly by the use of a few taller plants, such as *Lythrum alatum*, *Ononis natrix*, the larger Sea-lavenders, and the dwarf, hardy Fuchsias, such as *F. pumila*, *F. reflexa*, and the various varieties with fancy names; and in this connection *Nierembergia frutescens* should not be forgotten—a glorious plant, producing a great cascade of delicate lilac-white flowers; reported tender, but it came through last winter with me in open ground. Of miscellaneous August-blooming rock-plants I would place in the forefront *Silene schafta*, *Tunica Saxifraga*, *Galium rubrum*—the first a mass of rose-coloured flowers, the second of pink, the third a wondrous cloud of chocolate-brown. *Achillea Kellneri*, one of the best of the newer Milfoils, is now in full flower, while *Artemisia maritima*—a native plant too seldom seen in gardens—produces a fine mass of silver. In *Dianthus pinifolius* we even have an August-flowering Pink, while of the dwarf Potentillas *P. Tonguei* is a real gem. The spring fruiting heads of

*Acacia microphylla* are extremely decorative with their crimson colour, and for a bit of exquisitely-coloured foliage it would be hard to beat the autumn growth of *Corydalis ophiocarpa*. With *Scabiosa graminifolia* and *Thymus strictus* we must bring the August list to a close, though it might be lengthened.

Many of these plants and others will be found to last well into September, notably the scarlet *Zauschneria californica*; also, various spring-flowering rock-plants have a delightful way of sending up little vivid autumn sprays of bloom. But September is not altogether without flowers of its own. Several of the best of the Sedums, for instance, only now come into bloom, notably *S. spectabile* and its varieties, and *S. Sieboldii*; *Plumbago Larpenae*, one of the very best of rock-plants, brightens the September days with its gentian-blue flowers and red fading foliage; and, later still, no rock-gardener should be without *Saxifraga Fortunei* and *S. cortusefolia*, planted in a position slightly shaded overhead, that in chill October they may expand their lovely panicles of white blossoms without fear of injury from frost.

## Roses.

By O'DONEL BROWNE, M.D.

A QUESTION often asked is—how are roses judged at shows? They are sometimes judged anyhow—but, if the National Rose Society's code of rules are used or acknowledged by the show committee, and if the judges adhere closely to these rules, then their onus and responsibility are somewhat made easy. It takes a good rose-grower to judge roses properly; anyone cannot judge a rose. Another point in judging roses is the quality. It is easier to judge well-grown stuff than roses of inferior quality.

These are the rules of judging:—

1. Roses must be judged as they are in the boxes at the time of inspection. No other consideration is admissible.

2. Firstly dismiss from consideration all boxes manifestly inferior.

3. Then compare those which remain.

4. The following, whenever necessary, shall be the method of comparison—

(a) One of the judges shall name a number of points for each rose.

(b) The other judges (there should be three altogether) shall stand by and stop him when they do not agree, one putting down on paper the number of points. These are added up at the end.

(c) Three points should be given for high-class blooms, two for medium, one for one not so good, but not bad enough to cut out, and one or even two extra points for an extra superior bloom. Deduct one point for every decidedly bad flower. No points given to a flower left tied. A typical three-pointed bloom should be fixed on prior to judging, and should be carried as a reference for standard.

(d) Trebles are counted as a unit.

(e) No favouritism to Teas in a mixed class.

(f) Where points are even—then evenness of blooms, then freshness, arrangement, &c., may be considered. They should be compared side by side in the same light,

A bloom should be taken to mean a rose, with or without buds and foliage, as cut from the plant.

A truss should be taken to mean a stem of wood of any size, with shoots, blooms, buds and foliage thereon, as cut from a plant.

A good rose. The highest type of bloom is one which has form, size, brightness, substance, and good foliage, and which is, at time of judging, in its most perfect phase of beauty.

A bad rose. Faulty shape, confused or split centre, faded colour, undersized, or oversized to extent of coarseness or over-blooming.

Form shall imply—petals abundant and of good substance, regularly and gracefully arranged within a circular outline, and having a well-formed centre.

Size implies that the bloom is a full-size representative specimen of the variety.

Brightness includes—freshness, brilliancy, purity of colour. There are other rules, some very important, such as dressing a flower wrongly, duplicates, added foliage, &c., that disqualify. Re duplicates, the question of them shall not be re-opened after the awards are made—but it is most important for judges to be able to detect duplicates. The italics are mine.

From the above you will see that a judge has no small amount of responsibility when he agrees to judge roses at a show, so do not agree to judge unless you are going to do your work conscientiously. Secretaries and committees should pay especial heed to whom they allocate this duty to. All local show committees over the country should, if possible, arrange that there is at least one good rose grower among the judges. He may by a timely word keep the other judges from doing untold harm. The late Dean Hole stated that judges could be divided under three heads:—(1.) The man who grows and knows roses to perfection; his opinion is worth a good deal. (2.) A good all-round judge; his opinion will be on the whole fairly correct. (3.) The man who is put to judge roses because he once grew onions; well, he may be a most excellent man—but to the latter I would say, says the Dean—"Cassio, I love thee, but never more be officer of mine." Cases from time to time crop up (this year has been a fruitful one) where a mistake makes the whole camp hum, and it is to guard against these petty frictions that I have written this article, in the hope that in future our shows and their committees may be a credit to us. No one likes lodging an objection to a brother exhibitor because he has not had his faults made open by the judges. Nor is it always the judges' fault. Most shows are very lax as to the time allowed to exhibitors, with the result that the judges must scamp their work, may be to catch a train. If a man condescends to judge at a show, then treat him with proper courtesy, and have all ready for him at the appointed hour, and do not expect him to do too much for you in a short while. Another point, often missed by those who have to engage the judges, is that they do not engage their judges early enough. Judges should be given due time to settle their own affairs, and not at the last moment should they be asked to perform a "most thankless work," save in very exceptional cases. Enough.



GARDENING helps body, mind and spirit. It gives exercise in air and quiet; it stimulates thought, calls out resources and quickens curiosity; it induces tender ways and gentle patience, and it forces the acknowledgment of dependence on a Power greater than our own, and beyond our control. . . . He who makes a flower grow gets some good for himself, and he also gives good to every passer-by who sees its beauty. The gardener is blessed and blesses. Why is not everyone, for some portion of his time, a gardener?

—Rev. Canon A. Bennett.

## School Gardening.

By L. J. HUMPHREY, Special Instructor in School Gardening under the Department of Agriculture and Technical Instruction for Ireland.

**A**LTHOUGH school gardens in Ireland are not so numerous as might be expected from the agricultural character of the country, there are a number of such gardens in connection with schools of various kinds. Nearly all of them are worked on the individual plot system, a plot being placed in charge of one or two pupils. The size of the gardens varies, but a garden of about a quarter of an acre is a most satisfactory size for a country school. In a school where a number of classes can be held the garden could be larger. Such a garden is the one illustrated—that in connection with the Kingstown Technical School. This garden is the first in the country in connection with a school of this character, and, being just over an acre in area, it provides abundant opportunity for practical instruction in gardening.

The portion shown in the photograph is worked by scholars from the elementary schools, while other portions are devoted to the cultivation of fruit, vegetables, and flowers, much of the work being done by students who join under the usual conditions applying to Technical students. One of the features of school garden work in Ireland is the readiness with which the students at girls' schools have taken up the work, and the

instruction is not confined to the cultivation of flowers, fruit and vegetables being grown in all such gardens. Several schools of Domestic Economy now include gardening as one of the subjects, and the practical outdoor work forms a healthful and pleasing change from the routine of indoor work. The teaching is intended to be of a thoroughly practical character, but with the elementary school students lessons in Nature Study are given to illustrate the theory of the subject.



Photo by)

[C. Neville Cooke.

SCHOOL GARDEN, TECHNICAL SCHOOL, KINGSTOWN.

## Royal Horticultural Society of Ireland.

**T**HE monthly meeting of the council was held at the society's offices, 5 Molesworth Street, on the 21st ult., the following members being present—Messrs. G. M. Ross, E. D'Olier, D. Houston, J. W. Henderson, J. McKellar, W. F. Gunn, Ernest Bewley, H. P. Goodbody, and F. W. Moore.

Various accounts relative to the last show, as recommended for payment by the Finance Committee, were adopted, as were also the items comprising the prize list. Respecting the latter, prize winners are requested to notice that all prizes in the sweet pea classes will be paid by the National Sweet Pea Society direct. The recommendation of the judges, that gold medals be awarded to Messrs. W. Drummond and Sons and Alex. Dickson

and Sons, Ltd., with silver medals to Messrs. Chas. Ramsay and Sons, Wm. Watson and Sons, Dicksons (Chester), Jas. Carter & Co., Browett and Sons, Pennick & Co., and Hogg & Robertson, for fine trade exhibits, was also ratified, the council unanimously voting a gold medal to Mark McDonald, Esq., M.B., Portaferry, in recognition of his fine stand of border carnations. The following were duly elected members of society, viz.:—Mrs. Bewley, Sandford

Grove, Dublin; Mrs. Moore, Kiltarnan Grange, Co. Dublin; Mrs. Hely-Hutchinson, Donabate; Miss McDonnell, Gleann-Mor, Drogheda; and R. J. C. Maunsel, Oakley Park, Celbridge; with Mr. Robt. Duthie, Phoenix Park Gardens; Mr. Jas. Dent, Luttrellstown; Mr. W. King, Ballywalter Park; and Mr. Thos. Shaw, Santry, as practical members. It should be understood that the subscriptions of members joining the society now clears them till January, 1910.

Mr. Thos. Smith, of Newry, contributed some interesting specimens for inspection, notably *Spirea lethleheimi*, apparently a much glorified form of the old and well known *S. douglassii*, with rosy, crimson spikes and handsome foliage; also the very quaint Hungarian Foxglove, *Digitalis lanata*, and that remarkable Spanish chestnut-like *Castanopsis chrysophylla*. Two good border flowers were also evidenced in *Rudbeckia pinnata* and *Potentilla hopwoodiana*.

“HE who has more learning than goodness is like a tree with many branches and few roots, which the first wind throws down.”  
—*Falmud*.

✻ ✻ ✻  
**SPANISH BROOM** (*Spartium junceum*).—What a lovely plant this is in the border or shrubbery, with its switch-like shoots, carrying its wealth of golden flowers from June to August! If its seeds are gathered before they are quite ripe, and sown at once, they will produce thrifty seedlings next spring. Old, straggling plants should be severely cut down in the autumn, so as to encourage the formation of strong shoots the following year. The plants will thrive in any poor, dry soil or sunny bank, being provided with deeply penetrating roots that search for water to great depths in an open soil.



## Irish Gardeners' Association.

### Trip to Glenmaroon.

ONE of the pleasantest trips experienced by members of the Irish Gardeners' Association was that of the 12th ult., when Mr. W. S. Hall, the indefatigable hon. secretary, foregathered his flock at Parkgate Street for the short run by tram to Chapelizod. And it was a goodly flock—half a hundred, according to our count, with the after addition of a few freewheelers who joined at the entrance gates to Glenmaroon, where Mr. Vincent took the party in tow, and under his able leadership the tour of inspection commenced. First the avenue, which approaches the new residence of the Hon. Ernest and Mrs. Guinness, whose hospitable treatment of the Irish gardeners is a pleasant memory they are likely to hold for some time; but of that anon. The new residence on the park side of the property is connected to the older building on the banks overhanging the Liffey by a corridor bridge over the public road. Ere crossing an auxiliary footbridge to the more romantic Liffey side we notice that a good deal of heavy ground work has been in operation, the newness of which is still a little apparent, but the planting in evidence will soon alter that. Amongst other things a good planting of Anthony Waterer spiraea was gay with its crimson blossoms, whilst nearer to the house a massive bed of the deep red rose Felleberg was very bright; but Mr. Vincent takes us to the edge of the plateau, where the ground falls steeply to the valley below, and from here a glorious panorama of the distant Wicklow hills is very gratifying. It is, in fact, a vantage point from which an enormous sweep of the old country under its most romantic aspect here greets and satisfies the eye.

Crossing the aforementioned footbridge, and gaining the quaintly disposed terraced banks, a descent is made to the Liffey side, where an hydraulic power house interests those with engineering tastes. Many good bushes of the Rosemary-leaved willow, *Salix rosmarinifolia*, prove it a distinct and interesting plant for the position, and near at hand is an extensive rock and bog garden, over which one would have liked to linger longer than time permitted. A goodly collection of the lesser Alpines suited to the situation is very interesting, as well as stronger growers in the way of *Romneya coulteri*. Amongst the former we noticed *Calceolaria plantaginica*, *Anthemis aizoon*, *Andromeda tetragona*, *Saxifraga longifolia vera*, a plant with much narrower foliage than the type, also *Pentstemon coeruleus*, *Tropaeolum polyphyllum*, and among stronger growers of the lesser type *Oenothera macrocarpa* was very pleasing.

In the bog garden proper, where placid pools are broken by flat rocks, a brace of herons in bronze disclose themselves among the foliage, and appear very happily associated with their surroundings, whilst on a gently sloping bank dwarf bushes of rhododendrons are brightened up during their dull season with the soft blue of *Viola cornuta*, apparently a superior type of the old favourite. Irregular bits of flat stone form the walks, and these have their crevices filled in with sedums and a few other prostrate growers. Towards dryer ground one comes on a fine planting of longiflorum lilies springing through a dense carpet of mimulus, and what must not be forgotten is good clumps of the Japanese iris, *Kempferi*, flowering freely, but which one must visit in early morning to catch them at their best. *Convolvulus mauritanicus* was very beautiful, hanging in pendant masses from the clefts of some boulders. We have not seen it planted out before, but as seen here it is a plant to be remembered.

Our party pushes on with the guide ahead, and we leave the pretty rock and bog garden with some regret. We now enter another garden by a perfectly circular

arch, which is suggestive of—of, we do not quite know what, but shall keep the idea for a future occasion if ever such crops up, for it is both novel and pleasing. Through the circle we find a garden gay with pentstemons, phloxes, delphiniums, and the coral red *Phygelium capensis*, and facing a homely-looking summerhouse is quite the finest specimens of the white *Agapanthus* we have ever seen; but we follow the trail of our party, which sinuously keeps moving ahead.

Now, on higher ground, beneath a sheltering wall, a superb magnolia, with some of its huge, waxy flowers half hidden in the polished foliage, commands one's admiration, and in a chink of an old wall-buttress at hand is the brilliant *Gauschneria californica*. Away in the foreground of shrubbery planting bushes of *Ceanothus Gloire de Versailles* and the much darker indigo (aptly named) are beautiful in colour tone; nor must great bushy growths of *Buddlea variabilis veitchii* be forgotten. No modern introduction has become more popular, or deservedly popular, than this buddlea. But our party is quite disappearing, this time along winding walks, under noble trees which overhang a steep declivity, from whence far below a broad pool glistens. Some said it was the Liffey, others not. It was not settled, for the guide was still ahead, and when we catch him up at an old Danish fort other things claim attention, one thing being the stairs to the fort, which are placed outside for room, we suppose, as it is not large, or least what remains of it, and the guide is still ahead; but he knows the geography of Glenmaroon, and leads us by devious paths till another and wholly distinct feature is presented.

This we are inclined to call the Garden Beautiful, and it was a garden of roses. A broad plateau of greensward facing the mansion—far reaching, and stretching its whole length on the one side, a broad rising bank of Dorothy Perkins rose, all pegged down and all smothered in bloom; it certainly was backed up with the small, white Wichuriana also full of flower, but Dorothy eclipsed all, and came as a revelation of her capabilities in this direction. Other roses, of which there were fine beds of Teas and Hybrid Teas must not detain, nor the beautiful fountain of gold fish and lilies, for we had been a long round, and were preparing to say adieu to our courteous guide, who replied—"I think the teapot is ready." And it was, and more also, as he gave us our last lead to a spacious room, where long tables covered with spotless cloths, relieved by bouquets of sweet peas, and laden with sandwiches, cakes, buns and all that go to make a high tea were in evidence. It was a big family, but Mr. Vincent and his staff were more than equal to the occasion, and never was a heartier vote of thanks passed than that which was accorded to the Hon. Ernest and Mrs. Guinness, not only for the privilege of inspecting their beautiful gardens and grounds, but for their kind and thoughtful hospitality, which, as remarked, made in the altogether a pleasant and lasting memory for the Irish gardeners of their visit to Glenmaroon.

E. KNOWLDIN.



BLADDER SENNA (*Colutea*) is an excellent shrub for a mixed border. There are several species. They are leguminous plants with oddly pinnate leaves and axillary racemes of yellow flowers passing into much inflated pods (hence the name "Bladder" senna). They may be propagated by seeds sown in the autumn or by cuttings struck in sandy soil under handlights.

THE SOAP-TREE (*Gymnocladus chinensis*) is a hardy leguminous tree with double pinnate leaves and white flowers appearing early in summer. The seed-pods contain a soft substance which is used by Chinese women for washing the face (hence the name of "Soap" tree). It loves a rich loamy soil, and prefers partial shade.





# The Month's Work

## September



### The Flower Garden.

By J. G. TONER, Horticultural Instructor, Co. Monaghan.

**M**ANY changes must be shortly made in the flower garden and greenhouses owing to the coming of autumn, with its shortening days and falling temperature. The period is rapidly approaching when it will become necessary to strip flower beds of their summer occupants, and all choice and tender subjects will need to be placed under cover in good time. Nothing more than protection from heavy rains or storms will be necessary at first, but in regard to plants in pots, especially those that have been prepared for winter or spring flowering, it is imperative that they should not be allowed to become soddened by continuous rain just at the advent of the cold season.

Towards the end of the month all hard-wooded subjects should be removed from their summer quarters in the open to cool houses or windows as the case may be. Primulas, cyclamens, mignonette, zonal pelargoniums, and other plants of a like nature intended for winter blooming, must be placed, if possible, on shelves or, at all events, close to the glass in suitable houses, and watering must from this month forward be very carefully performed, else there will be disaster. Plenty of air will be necessary so that the change from natural to artificial conditions may not be perceptible to the plants.

How delightful it is to see the bright flowers of vallotas or Scarborough lilies here and there mostly in windows, for the greenhouses in this portion of rural Ireland are, like the angels' visits, few and far between! It is a plant that all, especially window gardeners, should be possessed of. Was the giant from Monks-town on view at the late show of the R. H. S.? If not, more's the pity.

See that all tender plants are lifted and potted in good time. There is still opportunity of making up deficiencies in bedding stock for next year.

Cinerarias must soon be placed in their flowering pots—plants in sixes will be found most useful for house work. Keep plants of this kind as long in the frames as possible, as the coolness and moist atmosphere suit them exactly. Protection must be thought of, however, when frost pays a visit.

Purchase and pot up bulbs of all kinds, as the slower the growth is made the finer the bloom will be. Hyacinths, narcissus, tulips, ixias, sparaxis and feather hyacinths will all be found to make beautiful subjects in pots, and that too with the simplest but careful culture, the principal aim of the grower being to get the roots at work before any development of foliage or flowers. To induce this, when the potting has been done the pots should be stood outside and covered completely to a depth of at least four inches over the tops with sand, turf mould, or screened ashes, the substances being preferred in the order named. When a couple of inches, say, of growth has been made the pots may be removed, and covered for a few days with paper, so that they may become gradually accustomed to the light, and then they may be introduced to a gentle heat if forcing is desirable, or, better still, allow plenty of time and a rich, strong bloom will be the reward.

Aurum lilies that were planted out should now be potted, and placed in a cool house or shady place, and watering must be well attended to.

Defer the housing of chrysanthemums as long as possible, that is in a general way. When they are cultivated for large exhibition blooms they must be housed to suit their forward state, but in general they will do better outside so long as it is safe to leave them. All possible ventilation should be given after housing, and at least one thorough fumigation, otherwise fly will surely give trouble, and spread to other plants having a longer flowering period, and so upset the careful plans laid for producing winter flowers.

In the out-door garden dabbias will require tying and thinning. Herbaceous borders require constant attention to ensure tidiness and neatness—conditions that considerably enhance the beauty and effectiveness of this form of "natural gardening." All kinds of spring bedding plants should be in readiness. Wallflowers of many varieties, double daisies, *Arabis alpina*, hybrid primroses, fancy and gold-laced polyanthus, aubrietia, *Alyssum saxatile*, *Myosotis violas*, auriculas, and a host of others within the reach of all, and these, of course, may be reinforced by hyacinths, daffodils, tulips, crocus, chinodoxia, scillas, &c. Now is the time to purchase these, and plan out much pleasure for ourselves in spring. A few suggestions as to arrangement may not be unacceptable, and these are not intended for those who are accustomed to carry out work of this nature on an extended scale, or whose knowledge or experience may be much superior to the writer's, but they may be helpful to beginners who may possibly not know what to do with their plants, &c., when they have procured them. Keeping in mind that the beds would in all likelihood be limited in size, it will be well not to exceed two colours, and here are a few combinations that will be effective:—Cloth of Gold Wallflower, edged with *Silene pendula*; Vulcan Wallflower, edged with yellow Polyanthus; Ruby Gem Wallflower and *Arabis alpina*; Foget-me-Not planted over Cottage Maid Tulip; *Alyssum saxatile* and *Silene pendula*, purple and yellow violas, Gertrude Hyacinths, yellow violas, Arabis and Double-pink daisies, and so on. Many pleasing effects may be obtained with cheap and easily cultivated plants and bulbs.

### The Fruit Garden.

By GEORGE DOOLAN, Instructor in Fruit Culture, Department of Agriculture.

**G**ATHERING FRUIT.—Among the early varieties of cooking apples the following should now be fit to pick:—Early Victoria, Lord Grosvenor, Grenadier, Lord Suffield, Ecklinville, and Duchess of Oldenburg; and among the dessert varieties—Irish Peach, Early Harvest, Lady Sudeley, and White Transparent. In picking, which should be done in dry weather, great care should be exercised in handling the best fruit and packing it for market. Fruit is too often picked and sent to market indiscriminately, with the result that it does not realise its genuine value. Therefore

only the best and most uniform fruit should be selected, while all small, deformed and blemished fruit should be used or sold locally. Good, early fruit should fetch a good price this year, as there is a general scarcity of apples and pears throughout the country. Well grown, late varieties of apples should also realise a good figure if kept until late in the season, as there is sure to be a demand. There is a danger of late fruit ripening prematurely because of the dry season, therefore it will be necessary to water any trees of pears or apples carrying good crops. Water the ground around each tree thoroughly, so that it will penetrate to the roots. The following apples will benefit from such treatment, as their period of growth extends well into October—Cox's Orange Pippin, Blenheim Orange, Newton Wonder, Lane's Prince Albert, Wellington, Annie Elizabeth, and Bramley Seedling; and among pears—Doyenné du Comice, Winter Nelis, Josephine de Malines, and Easter Beurré.

**STRAWBERRIES.**—Continue to make new plantations as directed in last month's IRISH GARDENING, page 131. Water plants already put out. The strawberry likes plenty of moisture, and responds to liberal treatment. It is a great advantage to have the new plantation made towards the end of August or early in September, the young plant will then have time to build up and make firm growth before the winter sets in. Old plants should have plenty liquid manure given them after rain, but it should not be given in dry weather.

**RASPBERRIES.**—Cut out all old canes immediately they have done fruiting; also remove any suckers not required, using a fork for the purpose. Seven or eight canes are sufficient for each clump, and these should have all the sunlight and air possible. Keep the ground free of weeds, and if the soil be of a light nature, give a mulch of good farmyard manure.

**LOGANBERRIES.**—Treat similarly to raspberries.

**WASPS.**—These pests do an amount of injury to fruit of almost every kind, and though they have not yet appeared (18th August) to any great extent, still it is quite possible, as the season is a favourable one, that they may be quite numerous later. Bottles (with wide necks) of sweetened beer should be hung amongst the fruit. These bottles, which should not be more than half full, will trap a great number. They may also be destroyed in their nests by using a mixture of sulphur and powdered saltpetre—two-thirds of the former to one-third of the latter. Mix and roll into a narrow slip of paper like a fuse; light at one end, and push into the opening of the nest. The fumes will destroy the wasps.

## The Vegetable Garden.

By WILLIAM TYNDALL, Instructor in Horticulture, Co. Kildare.

**I**N September there is often a great falling off in the supply of vegetables, and then we have frequently to use those intended for a much later season. Due attention, therefore, should be given to keeping up a good supply. With fine autumn weather French beans, late peas, vegetable marrows, and autumn giant cauliflowers will come in most serviceable until the frost comes, which is seldom before the end of this month or beginning of October. It would, then, well repay growers to have some kind of covering at hand to put over part of these crops—it does not require to be of heavy material like tiffany. If thrown lightly over them it will often save the above-named crops, and also runner beans,

one of the best autumn vegetables. As runner beans are later this year than usual on account of May and part of June being so cold, they should continue bearing till cut down by frost if the old pods are kept picked off. Towards the end of the month get out main crop potatoes, for if left in the ground many of the tubers become diseased after growth has finished.

September is a good time for planting box edgings, and very often it suits much better to do the work now than in the busy time during the spring months. The heavy rain which has just fallen after the drought will cause weeds to grow up quickly, so keep the hoe going to clear the ground.

**CELERY.**—Earthing up celery should now be done for the main crop, leaving that required for late keeping longer until the plants have nearly completed their growth. The heavy rain that has just fallen has done celery much good, yet it would in many cases be advisable to give a thorough soaking of water before earthing. The plants should be looked over and all side growths and decayed leaves removed. Then each plant should be tied with a piece of matting, and equal parts of soot and lime should be dusted between the plants to prevent slugs and worms damaging them. This should be done after earthing. The latter should be done on a fine day, well breaking up the soil before placing it about the plants. Care should be taken not to put the soil too high about the plants, keeping hearts always clear of the soil. In about three weeks earth again, and in another two weeks earth again finally for third time.

**ONIONS.**—These should now be ripe enough for harvesting, and if proper varieties have been sown it very largely depends on how this work is done, whether the crop keeps well or not. If the weather is fine the bulbs may remain on the open ground for a few days, finishing up the ripening under cover, keeping the bulbs fully exposed to sun and light, and so thoroughly dry them.

**CABBAGE.**—Spring cabbage, if ready for use early in the year, is justly considered a crop of great importance. Varieties noted for their earliness and freedom from bolting should be selected. A list of such varieties is given in July issue. As cabbage pays well for high cultivation the plot for spring cabbage should be deeply dug and heavily manured, giving also a good dressing of soot or soot and lime, this helping to free the ground of slugs which often damage the plants. In planting be sure to fasten the plants firmly in the ground, sinking the stems close to the lower leaves. Plant from middle of September onward, thinning out the plants in the seedling beds. If the ground is not ready prick out the plants into nursery beds sooner than let them spoil, but all planting should be done before October to give the plants a chance of getting established ere the hard weather sets in. Varieties like Ellam's Early and Excelsior may be planted two feet apart and one and a half feet in the rows, while Flower of Spring and Early Offenham require two feet every way. The small plants should be dibbled out closely in beds, and are useful for filling up gaps and planting out in the spring.

**LEeks.**—Leeks, whether growing on manured ground or in prepared trenches, will be much benefited by good soakings of liquid manure, making sure that the soil is damp before applying the liquid. If the plants have their roots near to the surface the stems cannot be blanched for any serviceable length unless they are moulded up. If the plants are a fair size this can now be done by drawing up the soil from between the rows

to the plants with a hoe. If the leeks have been planted in deep holes, as advised in July issue, blanched stems long enough for ordinary use will be got without earthing up.

**WINTER SPINACH.**—Another sowing may be made during the month to follow that sown last month. This sowing often comes into use just as the early one runs to seed and at a time in the spring when vegetables are scarce. In thinning spinach, unless crowded, do it gradually till the plants are fully six inches apart in the lines, the rows being fifteen inches apart.

## Vegetables for Spring.

By JAMES BRACKEN.

**T**HE supply of vegetables often runs scanty during spring and early summer. A want of forethought is generally the cause of this. In spring vegetables are especially welcome. Somehow, after the long winter, we relish such food more than at any other time. It may be that our systems naturally require it at that season. There is no doubt that vegetables at that time are scarcer, and consequently of more value than at other times, and when well grown for sale early vegetables are invariably profitable. But why should there be a scarcity? As has been said already, it is principally a want of forethought. Certainly in some cases it may be that people have not enough ground available to give a constant supply; in other cases it is a want of knowledge. A few words to the latter may be useful.

During spring we ought at least to have a supply of cabbages, broccoli, onions, lettuce, spinach, parsley and other herbs from the open ground, as well as rhubarb, seakale and asparagus from permanent plantations. The mistakes oftenest made in the cultivation of cabbage for early cutting are—sowing varieties not suited to that time, planting out too late, and putting out plants already spoiled in the seed bed either from sowing them too thickly or from the planting being left off too long. Cabbage to turn in quite early ought to be well established and the leaves largely developed before Christmas. It will disappoint if we expect a variety like Enfield Market to turn in early no matter how we manage it; it may be into July before this is fully grown.

It is not wise either to trust to Early York or to Large York, because a large percentage of these will bolt to flower; but if we plant out in September such kinds as Ellam's Early, Early Offenham, Mein's No. 1, or Flower of Spring from sowings made in the end of July and the beginning of August, we may reasonably expect a plentiful succession of early cabbages.

The mistake is often made of planting out broccoli when it is too late, and again when the stems of the plants have become quite woody, after which we never get the same vigour. Broccoli planted out after July seldom gives satisfactory results. For full development each head requires more space than is sometimes allowed. For varieties to cut during spring and early summer two and a half feet every way, in good soil, is not too much.

The autumn sowing of onions is often made too early, with the result that many of them start to flower before forming a bulb. In most seasons sowings made in the middle of August and towards the end of that month are safe, either made in lines where they are to remain or in beds sown broadcast, to be transplanted in February.

Winter spinach ought to be more grown. It often fails from being sown too late and in cold situations. July and early August is late enough to sow, and select a sunny, dry position in friable ground.

During the middle and end of August sowings of hardy lettuce, such as Hammersmith Hardy Green and

All the Year Round, ought to be thinly made. The first sowing should be transplanted during September for a first supply, the later sowing to remain in the seed beds till spring to form a succession. In every case the situation chosen for lettuce to stand the winter ought to be the sunniest and most sheltered at command.

The same condition must be observed when sowing cauliflower seed for the same purpose. Sowings of a variety of cauliflower, like Early London, can be made at the same time as the lettuce. Cauliflower plants require the protection of some overhead cover as a light, or mats, spruce boughs, &c., during severe frost.

It is seasonable to remind farmers and cottagers that the sale of autumn sown plants of cabbages, cauliflowers, onions, &c., is a very profitable speculation, and as well as bringing to themselves a good profit they also greatly benefit their neighbours. It is a decided gain to a district when good plants can be locally obtained at reasonable prices.

## Bee-keeping.

By T. MAGUIRE, The Orchard, Enniskillen.

**B**EE-KEEPERS had a pleasant surprise early last month when the delightful spell of hot weather came, in defiance of the old legend about St. Swithin, and put full steam on all the hives once more. The clover was past, but the blackberries were in full bloom, and, I think, the greater portion of the honey gathered during those days was from that source. It seems to be somewhat thinner than clover honey and lighter in colour, but the flavour is excellent. The roar of the large stocks during those evenings, in fanning out the moisture, was something to be remembered. It was a splendid time for getting sections completed, and those who removed the full sections as finished, and crowded the bees on those remaining, will have few unfinished sections to bother with this season.

It is now time to prepare for winter. Where the honey flow is over—that is, in localities where there is no heather or blue-botton within reach—stocks should be fed up at once, so that the stores may be properly sealed before the cold weather arrives. For the average amateur it is pretty safe to say that the best time to start spring stimulation is in the autumn. Old hands can do a good deal at forcing the pace in April, but the majority of amateurs do a great deal more harm than good. Over and over again I have found that the stocks which were well provisioned in autumn and left to their own devices until May come out much stronger than those treated to the so-called "stimulation" process in April. Anyone who wants the maximum of result with the minimum of labour had better give his bees 50 lbs. of stores now, and leave them alone after their winter packing until May next.

Before packing up for winter, go over each stock, and see that the queen is right. It does not pay to keep queens more than two years, and it is a safe rule, where practicable, to re-queen each stock every year, as even two-year-old queens sometimes get played out just at the time their services are most required. If any stock is found queenless, of course a queen must be provided at once. Young mated queens can be got cheap from the breeders in the autumn. Sometimes it is difficult to know whether a queen be present—there may be no eggs or larvæ, and still the queen may be there. If there be any doubt, get a frame of eggs or very young larvæ from another hive, and if queen cells be started in three or four days, that is a pretty sure sign of queenlessness. Remove such cells before introducing the new queen. Where an old or inferior queen is to be deposed, she should be found and removed. Next evening her successor can be introduced by the direct method—that is, she is confined alone in a match box

for half an hour, and then allowed to run down through a hole in the quilt. This operation must be done after dark, and the stock should be disturbed as little as possible when removing and replacing the roof. After two days the stock may be examined to see that the queen has been accepted. Of course beginners should remember that it is utterly useless attempting to introduce a new queen to a hive which already contains one, and those who buy expensive queens should make very sure, before risking their half-guinea's worth, that the stock is in a proper condition to receive it.

## Notice.

AWARDS IN THE PHOTOGRAPHIC COMPETITION.—1. (10/-) T. Maguire, The Orchard, Enniskillen; 2. (5/-) Harold Jacob, The Moorlands, Greystones; 3. (3/6) W. J. Mitchison, Mullaboden, Naas.

The prize photographs will be reproduced in illustration of an article on "How to Beautify the Home."

## Bulb Catalogues.

NOTE—It is strongly recommended to plant bulbs early, as this will give the roots time to make good growth before the soil loses its stored-up heat. It is also important to use bulbs of good quality only—plump, heavy, and well matured. This is especially essential if the intention is to grow the bulbs in fibre, as directed on page 137. The advantage of dealing with good firms is emphasised by the experience recorded by Mr. Brock on page 139.

BULBS FOR GARDEN AND GREENHOUSE. Autumn, 1908. Issued by Sir James W. Mackey, Ltd.—This is a descriptive catalogue of ornamental, bulbous and tuberous-rooted plants for autumn and spring planting. It is beautifully printed on thin plate paper, and is handsomely illustrated. The picture of grape hyacinth in bowl, on page 137, is a reproduction of one of the illustrations in this pleasing catalogue.

CATALOGUE OF BULBS. J. R. Pearson & Sons.—This is a very tasteful publication, consisting of eighty pages of letterpress and illustrations. The cultural directions in several cases (Narcissi, for example) are very full, and a section devoted to "Household Flower Gardening" will be found interesting and helpful.

BULBS AND HARDY FLOWERS, issued by Samuel M'Gredy & Son, Portadown—A comprehensive illustrated list (with cultural notes) of bulbs and other hardy perennials for autumn planting. The Narcissus section is botanically arranged, and the varieties very fully described. Bulbs for early flowering in pots and vases are specially listed. A very useful catalogue.

BULBS AND NURSERY STOCK—being the catalogue of David Henry, Carlow—This is a very neat and prettily illustrated list of hardy garden plants, including bulbs, ornamental flowering shrubs, roses and fruit trees. A useful list of apples for the home garden is given on page 9.

BULBS FOR AUTUMN AND SPRING PLANTING.—Another well illustrated and descriptive catalogue sent us this month is that of Wm. Fell & Co., Hexham, Ltd. A choice selection of hyacinths and Narcissi are catalogued.

LIST OF DAFFODILS AND OTHER BULBS, issued by Miss F. W. Currey, of Lismore. Miss Currey is well known by all daffodil lovers as an expert in the culture of these garden favourites, as well as a successful raiser of new varieties. The catalogue is small but choice.

## To Correspondents.

OWING to pressure of space this month correspondents have been answered by post. If answers have not been received will readers please repeat queries, when replies will be forwarded at once.

THE caterpillars sent by W. B. are (both) those of the Pepper and Salt moth (*Amphidasyus betularia*) that mimic so cunningly a piece of dead apple twig.

IN answer to a correspondent on the advantages of "French Gardening," we would say that it is advisable not to accept for gospel all that the newspapers have reported on this subject. We have it from an authority that it has yet to be proved whether "French" gardening will pay in the British Isles.

"A READER" asks for hints on the successful culture of the old-fashioned double primrose. The usual practice is about the end of May to take up the plants and divide the offsets singly. In doing so see that the plants lose as little of their moisture as possible. Secure some partially shady place, with rich, moist soil, and plant about twelve inches apart. See that these newly divided plants are not in the direct rays of the sun for a few days. Avoid this by covering with some light material as matting. Water freely. In the autumn they should have grown into healthy plants. Up-root with care, and plant in the spring flower-bed.

WITH regard to the query about the dropping of immature stone-fruit, the only reason we can give is that in all probability the soil lacks lime. The lime should be applied in autumn or winter to be effective the following fruiting season.

## SHOWS.

### Midland Counties.

THE sixth annual exhibition of the Midland Counties Association, held last month at Athlone, was a splendid success. For number and variety of its exhibits, for attendance and general interest, this exhibition is now without a rival in Ireland. The association has a great educational influence in the Midlands, and is infusing new ideas, new interests, and new life into the rural districts.

There were over 2,000 entries, which included not only horticultural exhibits but poultry, butter, honey, and such industrial exhibits as woodwork needlework, lace, cookery, preserves, &c. The horticultural instructor for Roscommon (Mr. Bowers) gave lectures and microscopical demonstrations on potato disease and kindred subjects. One great attraction of the show was the demonstration plot section, and special mention must be made of the plot (Mrs. Flynn's) that secured the first prize.

The flower tent containing the exhibit of many of the leading firms of florists and seedsmen of Ireland presented a very gay appearance, and attracted much attention. Any reference to this remarkable exhibition would be incomplete without referring to the public-spirited work of the president and secretary, Mrs. Dames Langworthy's enthusiasm and untiring labours, supported by the originality and organising genius of Mr. Harold Smith, have gone far to bring about the success this association has attained.

### Galway Horticultural and Industrial.

WHAT the *Western News* describes as the finest exhibition of plants, fruits, flowers and industrial products that had ever been held in the county of Galway for a number of years was held last month in the Convent Schools and Harpur's Hall. There were 1,100 entries, and great credit is due to the excellent arrangements carried out by the secretary, Mr. Rothwell.

## BEE-KEEPING MADE PROFITABLE.

Every Bee-Keeper who desires success should read

# THE IRISH BEE JOURNAL

(Established 1901.)

Official Organ of the Irish and Affiliated, Cumberland, and Perthshire B. K. Associations.

THE LARGEST PENNY BEE PAPER IN THE WORLD.

Received with enthusiastic approval and congratulations at Home and Abroad

"One of the brightest in the world."—*Gleanings (American)*.

"One of the liveliest and best Apian Journals in all Europe."—*American Bee-Keeper*.

"Could not be equalled."—J. FANN, Kilkenny

"Facile Princeps."—Rev. W. V., England.

Monthly 1d.; 1s. 6d. per Annum, Post Free.

From the office, IRISH BEE JOURNAL, Lough Rynn, Dromod, and of all newsgagents.

## "NICOTICIDE" Fumigant.

Half-gallon Tin, containing sufficient for 100,000 cubic feet	80/-	Carr. paid.
No. 1 size Tin—1 pint	40,000	
No. 2 size Tin—1 pint	20,000	
No. 3 size Bottle—8 oz.	12,000	
No. 4 size Bottle—4 oz.	8,000	
No. 5 size Bottle—1 oz. (sample)	2,000	10d.

### FUMIGATORS,

1/- each, for 5,000 cubic feet.

### NICOTICIDE PLANT WASH For Outdoors.

1/2 Pint, 1/2; Pint, 2/-;

Quart, 3/6; 1/2 Gallon, 5/-;  
Gallon, 10/-



Gow's Slug and Wire-  
worm Destroyer,  
Lawn Sand, Daisy  
Eradicator,  
Tobacco Powder and  
Quassia Extract.

Sold in 6d., 1/-, also 2/6  
Tins and larger sizes.

INSIST ON YOUR SEEDSMAN  
SUPPLYING THEM.

GOW'S WINTER ALKALI TREE WASH for destroying Woolly  
Aphis, Scales, Lichen Moss and Apple Barkers, &c. Half-gallon, 2/6; Gallon, 5/-  
carrage paid. One gallon will make 20 gallons solution.

HUNTER & GOW, 46 Thomas Street, LIVERPOOL.

**EVERY WEED DESTROYED**

ON GARDEN CARRIAGE  
PATHS, BY DRIVES, &c.

**"CLIMAX" WEED KILLER.**

ONE APPLICATION IS SUFFICIENT FOR 12 MONTHS. IT KILLS THE WEEDS ROOT AND BRANCH.

No. 1 tin, to dress 100 sq. yards, 2s. 3d. post free. No. 2 tin, to dress 400 sq. yards, 7s.

Write for our Catalogue of Garden Helps.

BOUNDARY CHEMICAL CO. LTD. CRANMER ST. LIVERPOOL

## Encourage Home Industry!

We can supply you with Greenhouses, Poultryhouses, Dog Kennels and all Appliances 25 per cent. less than the foreigner.

### McLOUGHLIN & CO.,

Horticultural, Canine and Poultry Appliance  
Manufacturers,

15 Berkeley Street, DUBLIN.

## JOHN FALCONER,

LITHOGRAPHERS, PRINTERS,  
BOOKBINDERS, PUBLISHERS,  
AND STATIONERS.

**B**EG respectfully to draw the attention of Advertisers to their special facility for producing in first-class style, and at a reasonable cost, Seedmen's and Nurserymen's Catalogues, illustrated either in black or by the three-colour process; Price Lists, Attractive Folders for inserting in Magazines, &c., &c. All work entrusted to our care is executed by skilled and competent workmen, and the resources of our Establishment, both in suggestion and first-class material, are at their command.

**ESTIMATES FREE ON APPLICATION.**

**Specialities:** MUSIC PRINTING IN BOTH NOTATIONS, AND WORKS  
IN THE IRISH LANGUAGE.

**53 UPPER SACKVILLE STREET, DUBLIN . .**

# *Power's Tested Seeds*

AS SUPPLIED TO

HIS MAJESTY THE KING

---

PURITY AND GERMINATION GUARANTEED.

---

*Special Quotations on Application.*

---

## **WM. POWER & Co.,**

Seed Merchants and Nurserymen,

## **WATERFORD.**



OCT., 1908.

TWOPENCE.

# Irish Gardening

## Contents

	PAGE		PAGE
The Home Beautiful . . . . .	149	Sex in Plants . . . . .	158
Roses . . . . .	151	Current Topics . . . . .	159
Royal Horticultural Society . . . . .	152	A Striking Exhibit (Athlone Show) . . . . .	160
Notes on Strawberries and Plums . . . . .	153	The Month's Work . . . . .	161
The Herbaceous Border . . . . .	154	Apples, how to Cook . . . . .	163
Michaelmas Daisies . . . . .	154	Cottage Gardening . . . . .	163
A New Lobelia . . . . .	155	Bee-keeping . . . . .	164
"Arbor Day" . . . . .	156	Correspondence . . . . .	164
The Chrysanthemum . . . . .	158	Reports of Shows . . . . .	x

# EDMONDSON BROS.

**Seed & Bulb  
Merchants .**

**10 Dame Street, DUBLIN**

# MAGUIRE & GATCHELL LIMITED

**200 BOILERS  
READY FOR  
FIXING**

**SPECIALISTS for . . .**

**HEATING**

**HORTICULTURAL BUILDINGS**

**Wholesale  
Agents for  
Pennsylvania  
Lawn Mowers**

**7, 10, 14 & 15 Dawson Street, DUBLIN**



## WINDOW GLASS.

Polished Plate for Shop Windows.  
Ornamental Glass of all Descriptions.  
Horticultural Glass at Lowest Rates.

## DEATH TO THE WEEDS.

### HOYTE'S WEED KILLER.

*Strongly Recommended for the Destruction of Weeds, &c.*

Price, 2s. per gallon; 5 gallons, 1s. 6d. per gallon;  
10 gallons, 1s. 3d. per gallon; Original 40-gallon casks,  
15s. per gallon.

**HOYTE & SON,** The City of Dublin Drug Hall,  
17 LOWER SACKVILLE STREET, DUBLIN.

## BECKER BROS.

PRICES—

2/5, 2/2, 2/-,  
1/10, 1/8, 1/6,  
1/4, 1/2.

PRICES—

2/5, 2/2, 2/-,  
1/10, 1/8, 1/6,  
1/4, 1/2.

## TEAS.

8 Sth. Gt. George's St. **Dublin.**  
AND 17 Nth. Earl St.

All Original Illustration Blocks in  
"Irish Gardening" are executed by  
... THE ...

## Irish Photo-Engraving Co.



Samples and Prices  
for every kind of  
Illustrative Work  
upon application.

Oriel House, Westland Row, DUBLIN.

## FOR Flower Pots AND Horticultural Pottery

WRITE

**G. J. OWENS,**  
Brick and Pottery Works,  
**ENNISCORTHY.**

Agents for Dublin and District:—Messrs. E. BROWETT & SONS,  
7 Upper George's Street, KINCSTOWN.

"Has stood the test of a quarter of a  
century."

## THOMSON'S Vine, Plant, and Vegetable MANURE.

Only Medal,  
Edinburgh, 1886.



Gold Medal,  
Edinburgh, 1891.

The result of long Practical Experience. Unrivalled  
for all Purposes. This valuable Manure is  
yearly growing in public favour.

ALSO

### THOMSON'S SPECIAL CHRYSANTHEMUM MANURE.

Perfect Plant Foods,  
SOLD BY ALL SEEDSMEN.

Price Lists and Testimonials on application to  
SOLE MAKERS—

**WM. THOMSON & SONS, LTD.,**  
Tweed Vineyard,  
CLOVENFORDS, GALASHIELS, N.B.

## BULBS! For PLANTING NOW. . . For SPRING FLOWERING.

Carriage Free by Post, Tram, or Rail.

TAIT'S "MONSTER" Collection of 1,300 Selected  
Bulbs for outdoor cultivation, 21/-; half, 10/6.

**Hyacinths**—Choice named sorts for Pots and Glasses.

**Hyacinths**—Second size, named in distinct colours for  
Vases, Massing, Bedding, &c., Bright Red, Rose,  
White, Blue, &c.

**Hyacinths**—Mixed, for Beds or Borders of First Class  
quality, all colours.

**Tulips**—Choicest Single Mixed, Choicest Double  
Mixed.

**Crocus**—Mixed Blue, Mixed White, Mixed Striped,  
Mixed, all colours. Large Yellow.

**Narcissus and Daffodils**—Mixed, consisting of all the  
leading and best cutting varieties.

**Anemone**—"St. Brigid," the most beautiful of all the  
Anemones.

**Freesia, Iris, Ixias, Snowdrops, Ranunculus,**  
**Anemones, Gladioli, Jonquills, Lilies,** and  
every known bulb in cultivation at lowest rates.

✉ WRITE FOR BULB CATALOGUE POST FREE. ✉

## W. TAIT & CO.

Bulb and Seed Merchants,  
119 & 120 CAPEL STREET, DUBLIN.

# IRISH GARDENING

VOLUME III.  
No. 32

A MONTHLY JOURNAL DEVOTED TO THE  
ADVANCEMENT OF HORTICULTURE AND  
ARBORICULTURE IN IRELAND

OCTOBER  
1908

## The Home Beautiful.

By EDWARD KNOWLDIN, F.R.H.S., Secretary Royal Horticultural Society of Ireland.



“THERE is no place like home,” and there is no occasion to say so, only that inasmuch as there are homes and homes, and some who have love of gardening in their hearts as well as the love of home, and bring the two into happy alliance, are, one feels, public benefactors. Even the humblest home, when embowered in blossoms and greenery, is pleasant to the eye of all, and more also, but of that anon; and one feels that it was a happy editorial thought which associates the subject with IRISH GARDENING, for there are wide openings for its extension through the length and breadth of the Green Isle.

Amongst the wealth of material now available for beautifying the home one climber and one creeper, for which we are indebted to China and Japan respectively, stand out pre-eminent

as decorative subjects. First, the *Wistaria*, which we venture to call a trailer-climber; the other, *Ampelopsis veitchi*, that creeper which clingeth closer than a brother. It would be superfluous to discuss plants so well known to readers, and as vain to shower praise on them as to “paint the lily;” yet, momentarily, one recalls the somewhat rare examples of ancient *Wistarias*, as seen on the verandahéd façade of some old manor house—a house which comes not, perhaps, within the category of “the stately homes,” but few will dispute its claims to the most picturesque. It is here that the most beautiful of our trailer-climbers is most happily situated, when, with the verandah as a support, it frames the whole in festoons of inimitable grace and peerless beauty.

The writer having reached his anecdote-age may be pardoned in recounting a little story told to him and the late Mr. Burbidge by a gentleman when looking at the giant *Wistaria* covering the old stone arch in the Trinity Botanical Gardens, Dublin. “Ah!” he said, “a similar plant covered the front of my old home, and one day when in full bloom a gypsy woman came to my father and said—‘Will you please tell me the name of the beautiful flower?’ He told her. She then said—‘Will you please write it down?’ He wrote it down *W-i-s-t-a-r-i-a*. ‘But why,’ he asked, ‘do you want to know?’ She replied—‘There was a baby girl born in the camp last night, and we intend to call it after the flower.’” Truly, a simple but eloquent tribute to the *Wistaria*!

*Ampelopsis veitchi*, which every up-to-date young gardener tells us we should now call *Vitis inconstans*, and which in our perverseness we won’t, having a penchant for old names, old friends and old fashions, is the one thing in creepers which all seem to have taken to their hearts, and many to their buildings, to the end of its doing a lot to beautify bricks and mortar,



Photo by

[Mr. Harold Jacob

**THE MOORLANDS, GREYSTONES, CO. WICKLOW.**  
The Residence of George N. Jacob, Esq.

The photograph was taken three years after the completion of the house, and shows the extent to which the south wall of the building was covered in that period. The ivy-leaf geranium is shown in full flower against the house, reaching to the upper windows, and is also in the tubs and the hanging baskets on the verandah. A crimson rambler rose is growing against the wall with the geranium, and encircles the casement window above, showing here and there through the geranium on the wall. A *Reve d'Or* rose is shown round the Octagon window, and *Solanum jasminoides* on the verandah.

and that at a minimum of labour. We plant it and cut it back that it can cling to the base *ab initio*, and the plant does the rest, and we are not inclined to fall out with it for its deciduous character, for even in its winter undress its delicate stem tracery has a beauty peculiarly its own, whilst from such time as spring bids it bestir itself till the "fires of autumn" kindle it into flashes of dying glory our friend from far Japan does more for us than any other creeper ever did or is ever likely to do. True, in the newer *Ampelopsis sempervirens* we have, as implied, an evergreen form, and then there are the true vines such as *Vitis Henryi*, *V. thunbergi* and *V. coignetiae*, all eminently suited to the

uprights of a verandah. It may be said that verandahs are the exception. That is so. We would, nevertheless, like to see them the rule if only under the simplest form of larch uprights with the spurs left on, and a latticed or other roof for the purpose of this adornment, whilst the porch, rustic or otherwise according to its fitness, is always welcome.

By the Liffey's side, yept the Strawberry Beds, how charming is the all too brief summer display when the humble homes are decked in all the bravery of emerald green and brilliant blooms of the common climbing nasturtium! Alas, that for so much of the year bareness prevails "where once a garden smiled!" With the steady progress of our district horticultural and industrial associations we can hope for better and more permanent things in this direction. We want our people to know all about Dorothy Perkins rose, the cotoneasters, *Crataegus pyracantha*, the fire thorn, and all the possibilities that lay before them in making the home beautiful, and it is just possible, too, that a little advice, as well as a little tangible aid, may be wanted to hasten the day of better things. Aspect and climatic condition cannot be safely left out of the calculation. In the ultra favoured spots, within sound and scent of the sea, we may have the elegant ivy-leaved pelargonium growing apace for years (as in Fig. 1), whilst such things as *Ecce-mocarpus scaber* and the Passion flowers *Cærulea* and *Constance Elliot* are as happy as they are beautiful, whilst we would like to see the gable end (independent of

aspect) of every cottage home covered with a fan-trained Victoria plum, and thus combine the *utile et dulce* in the decorative scheme. One may take it for granted, too, that the beautified exterior of home, however humble, is an index of the sweeter home life within.

To do justice to the illustration (Fig. 2) of the humbler type of home one feels it would be necessary to present the context shorn of its simple but effective decoration. However, such unfortunately is not wanting, for one can see it every day, to all intents and purposes, the same home nude and destitute of the redeeming vegetation, and all its crude ugliness emphasised, may be, by grimy gossoons and

the ubiquitous hen disputing the enjoyment of some vile garbage with the gentleman responsible for the rent. Look on that picture, and look on this! Surely the great difference which is seen is obtained at but the least expense of labour, and that merely a labour of love. The trim hedge, the tiny front garden with its old-fashioned flowers, framing the old home, from under the thatched roof of which depends a shower of multiflora roses. A gentleman interested in the social condition of the country, pointing to such, remarked—"Encourage that, and it will go far towards settling the Irish question."

But it is as raisers of new roses that I look to our Northern trade-growers with envious but admiring eyes, for if you only will take up a respectable rose catalogue (not one of the cheap foreign impostors), and run your eye through that catalogue, especially the Hybrid Tea section, you will be the better able to judge what I mean when I say that practically all the good roses of recent years have emanated from around Belfast. Rose-raising or hybridization is a very intricate affair, requiring an enormous amount of patience and care—not to speak of the cost—to carry it to success. The success is only proved when after years of testing the rose makes its first bow to all the critical eyes of British rose-growers at some show in England. Now, inasmuch as the first impression either makes or mars the future of that rose, it will be seen that time after time the raiser hesitates to show the flower,



*Photo by*

*[Mr. T. Maguire,*

THE "ORCHARD," ENNISKILLEN,  
The Cottage Home of Mr. T. Maguire.

## Roses.

By O'DONEL BROWNE, M.D.

THE wet weather recently has to a great extent marred our second bloom of roses, but as it has been generally distributed over the whole of the United Kingdom it is the same for all. The accounts to hand of the London Rose Show, held on the 16th September, all pointed out that the flowers were not up to the usual standard. Still our Irish nurserymen came away well in their classes, and it must be always a record to remember that from first to last all through this year our nurserymen have more than held their own. Some readers of this paper will never grasp the fact that it is by sheer hard work that our trade-growers still keep above their English rivals, and we ought to give them all the praise, help, and custom we can every year, and not send our money to foreign lands for wretchedly bad trees. Deal at home, where only the best is grown, and you will never repent it,

because he cannot catch it at its best. Very often a particular variety has to be kept back for several years before it can go forth to be judged, and it is the storing up of these varieties that cost the nurserymen so much expense in land and labour. Is it any wonder then that when the rose *does* come out that you and I should pay a little more for it? This is what I find so hard to instil into the minds of some amateurs who have never given this question beyond a passing thought. When a rose is sent out as a gold medal rose in its first season its price is rather prohibitive, but if you want it, pay for it you must. Gold medals are hard to earn, rest assured of it, and of all the earners none in the world can compare with our Northern firms. Where would the rose world be to-day without Messrs. Dicksons' labour? We should have no Hugh Dicksons, Mrs. Grants, Dean Holes, Killarneys, Bessie Browns, and that lovely pair of giants, Mildred Grant and William Shean, and a legion more. All these have cost labour, and there are more to come. What has always struck me as hard lines on these firms is the number of abso-

lately first-rate roses—roses which no other firm in the world could attempt to raise—that have not been awarded the gold medal, *the* hall and high-water mark of purity, simply because they had to go to make room for the advancing host of future generations. If any rose ever deserved the gold medal, surely Lady Ashtown did—not to mention Killarney. I fancy I hear Dr. Hall, in his own quiet way, grumbling about my not mentioning *his* little lot, but as the plum is always to follow the nasty medicine, I have kept his little lot as a tit-bit for the end. In a recent number of IRISH GARDENING I gave a short account of his new rose, and lest I should make him too conceited I will say no more. Oh, horrors! I find I have forgotten Messrs. Samuel M'Gredy, of Portadown—the raisers of that pretty flower Countess of Gosford, and winners of no less than two gold medals at the show last month. Well, you must change the order of Messrs. M'Gredy and Dr. Hall, for certainly the doctor's production is a gem of the purest quality. You must not expect all these novelties to come at once; some may not come for years, but come they will, and when they do be sure and write to their respective raisers, and show your appreciation for their good works by helping them. Now, when the catalogues begin to pour in by every post, for goodness sake eschew those abominable foreign productions and wait until the Northern firms send theirs to you, and then order from them. You will be helping to advance the very object for which IRISH GARDENING was started, and your orders will be appreciated by any Irish nurseryman.

As I write a wire has come to me thus:—"London. Dr. Browne, Naas. Gold medal, 'Dr. O'Donel Browne'; ditto, 'Hill Gray.'—Wm."

### Cultivation of Mignonette in Pots.

THIS popular plant is a valuable addition to the amateur's greenhouse, as its hardy constitution makes it admirably adapted to those who use unheated structures. In order to keep up a succession of bloom, seeds should be sown at intervals from September to February. The soil best suited to its requirements is two parts fibrous loam, one part leaf soil, with a mixture of sand or lime rubble; a light dusting of soot thoroughly incorporated in the compost will also be of benefit. Pots from four to five inches will be quite large enough to grow nice plants. They should be perfectly clean, and particular attention given to their proper drainage by placing a large crock on the bottom, taking care to put the hollow side downwards; over this a layer of smaller sized crocks, and, finally, some moss. Fill in the soil, leaving a space of one or two inches. This will allow for topdressing afterwards when the plants are in active growth. Slightly press the soil, and make the surface level. Make slight depressions in the soil a quarter of an inch deep, and drop the seed evenly around the pot. Cover gently with finely sifted soil, water with a fine rose, place on some coal ashes in a cold frame, and shade from strong sunshine. When the seedlings appear they should be given more light and air on all favourable occasions. When fit to handle they should be thinned before they become overcrowded or drawn. It is better not to thin too severely at first, as it will be easier choosing the healthiest plants at the second and final thinning. Failures generally occur at this stage by leaving the plants much too close. If well grown, one or two plants are quite sufficient for a five-inch pot. When they attain a height of three inches they may be pinched at the top leaf. This will induce side shoots to break away, and so form nice, bushy plants. By giving occasional waterings of weak liquid manure their blooming qualities can be maintained for a long period.

P. MAHON.

Gardens, Killeen Castle, Dunsany.

### Royal Horticultural Society of Ireland.

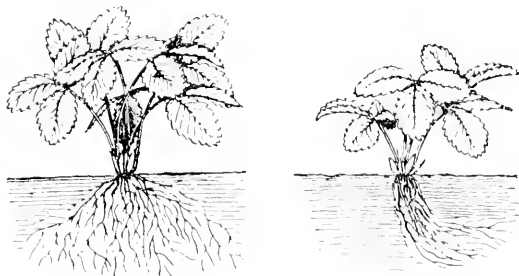
THE organising committee formed to stimulate interest in our premier gardening body is awaiting replies to a circular letter sent out to members asking for co-operation in increasing the membership and for suggestions from those interested in order to help on the end in view. Some replies with suggestions have already been received, and all will, eventually, have due consideration by the council. Two things are primarily wanted—viz., public interest in the society's shows and increased membership, and it is gratifying to note that some response is being made in the latter direction. At the last council meeting, Sept. 10th, F. B. Jameson, Esq., Glencormac, Bray, was elected, whilst the following were added to the ranks of the practical members, viz.—Messrs. W. Hardy, J. Vincent, L. C. Humphrey, G. Sayers, J. Allely, J. Ahern, and W. Baker. At the council meeting specimens were exhibited of the pretty crimson-burred *Acena Nova-Zelandiae* and the prostrate growing little Alpine hypericum, *H. reptans*, the latter an attractive species, with typical golden flowers an inch across, cushioned on slender, wiry stems, set with miniature, emerald green foliage. From the gardens of the Hon. Ernest Guinness, Glenmaroon, Mr. Vincent sent a bunch of a seedling viola, in the way of *V. cornuta*, but which, as seen carpeting an informal planting of rhododendrons at Glenmaroon, is a decided acquisition in its persistent floriferousness and substantial, shapely blossoms of pleasing bright blue. The schedule committee has been engaged on the programme for the Spring Show, 1909, which, after ratification at the next meeting of the council, will be ready for prospective exhibitors. It will, we venture to say, be found a good programme, in which the daffodil, of course under its many glorified forms, plays a prominent part. Hyacinths also are strongly catered for, and many valuable prizes are offered, including the challenge cup for roses and daffodils presented by the president, Lord Ardilaun. Undoubtedly the society is receiving strong support in donations to its prize list, although it may be remarked that openings still exist for those interested in particular phases of culture to make contributions in this direction which would be duly esteemed, and surely there is no better way for enthusiasm to encourage any particular cult than by this means. The gardeners' challenge cup, presented by members of the Irish Gardeners' Association, and confined to competition amongst its members competing at the Royal Horticultural Society Shows, has this year been won by Mr. S. Davies, The Gardens, Obelisk Park, Blackrock, with a total of 142 points, representing 11 first, 10 second, and 7 third prizes. All cups and medals won at the autumn show have been ordered for engraving, and should by this time be in the hands of the winners.

**LINUM PERENNE.**—Although a native plant, inhabiting a few of the chalk districts of England, this perennial flax is far from common, and even under cultivation it is rarely seen. To see it, nevertheless, on a summer's day, with its circular satin flowers of an exquisite cerulean blue, poised on slender stems, shimmering in the sunshine, begets the desire to have it. It is an excellent subject for the rockery, enjoying a fairly dry and exposed position, and seems able to endure all winters—the original we had from the late Mr. Burbidge having stood for at least ten years, and is now a bush some two feet high by as much through. Apparently it dislikes transplanting, and is best obtained by sowing seeds where it is destined to grow. *Linum perenne* is also known as *L. anglicum*. Any members of the Royal Horticultural Society of Ireland caring to have it can obtain a few seeds by enclosing address and stamped envelope to the Secretary, 5 Molesworth Street, Dublin.

## Strawberry Notes.

PLANTERS of strawberries will do well to remember that barren individuals are common among the different garden varieties, and that runners taken from such plants will, of course, be barren too. In propagating strawberries it is, therefore, very important not to use runners from such barren individuals, as it can only lead to present waste of time and future disappointment in the fruiting season. As these non-productive plants are more vigorous than the others, careless or ignorant propagators are very prone to select runners from them under the idea that they are especially good because they are exceptionally strong.

All runners should be taken from good fruit-bearing



The right way to plant.

The wrong way to plant.

stock, and as the best time to do the work is when the first runners appear, and further as they are produced in great abundance about the time the fruit are forming in June, it is quite easy to differentiate between the fertile and barren individuals. The first rule, therefore, to remember is that, as like begets like, the runners of a barren plant cannot be expected ever to produce fruit.

Another point to keep in mind is that, as in the case of potatoes and other crops, a change of runners is most desirable to guard against the risk of deterioration that is almost sure to take place if we continue to propagate from the same stock and grow under the same local conditions for an extended period of time. An occasional change of stock is essential to complete success. A third rule of planting is to give the crop a change of soil. Never make a new plantation on the same site as the old. All good cultivators are alive to the advantage of this.

Furthermore, the strawberry is a plant that gives off an enormous amount of water in the form of vapour from its leaves, and that is the chief reason why dryness of soil interferes so much with its full development, and why a fairly moist, cool soil is the best for these plants. For the same reason, a good depth of soil is conducive to successful growth. In preparing for a new plantation the ground should be well trenched and a liberal supply of *well-rotted* farmyard manure incorporated with the soil. Burnt garden rubbish is also a good fertiliser for strawberries. In making a new plantation it is most important to select the right kind of weather—a day when both the soil and the air are sufficiently moist to check any transpiration that might prove very distressing to the newly planted “runners.” While it is desirable to plant as early as possible, it is by no means so important as selecting the right kind of weather for the work.

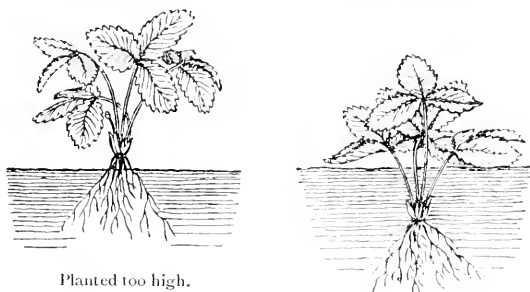
As to the right distance apart to plant the runners, it would be well for the novice to study the root range of a well-developed plant in, say, its second year of growth from the runner stage. It will be found that at least a good cubic foot of soil is entirely occupied by its mass of rootage, so that if the runners are, in the first instance, planted only one foot apart it will be necessary to re-

move, at the end of the second year, each alternate plant in order to give those that remain a chance to extend their root system the following year.

Lastly, and in reference again to the water requirements of this crop, it is very desirable to prevent, as far as possible, loss of moisture by ordinary evaporation from the surface of the soil. The aim of all growers should be to compel all the water that passes into the air from a strawberry plantation to go by way of the plant. To secure this, the soil should be made firm (in the case of light soils it can hardly be made too firm), and mulched after planting. The covering mulch will not only conserve the moisture, but it will tend to keep the soil at a more equable temperature throughout the year, checking loss of heat in winter, and keeping the soil relatively cool during the hotter months of the year.

## The Most Popular Plum.

NOW that the season of planting will soon be on us a few words in praise of Victoria, the most popular plum in cultivation, may not be out of place. That this plum has been more largely planted than any other since the Department of Agriculture has started fruit growing again in this country there can be little doubt, and taken from all points of view, what plum has so many good qualities? It starts bearing quickly after planting, producing good crops of fruit much sooner and more certain than any variety I know, so that on account of its free-cropping qualities the tree often only grows to a medium size, and, therefore, can be planted closer than most other varieties. On account of its spreading and slightly drooping growth I would recommend that tall half-standards should be



Planted too high.

Planted too low.

planted, as I do not care for this variety trained as bushes or pyramids. As a market plum it has no equal, and it is one of the kinds of fruit that should be planted in a cottager's garden, seldom failing to fruit, while at the same time it does not shade vegetable crops to the same extent as apple and pear trees. A trained Victoria plum on cottage walls, now often bare, would not only be ornamental but a source of profit to the owner. The tree is not particular as to soil, but in this country it does remarkably well in fairly strong loam or limestone. Be sure and get the trees worked on the mussel stock, for if on the myrobellia stock plenty of wood and no fruit generally results. Unfortunately for growers of plum trees in this country a large number of trees planted during the past five or six years have died, being attacked by *Eutypella prunastri* (fruit-tree postule), and, as in American gooseberry mildew, burning is the best cure.

W. T.

“Pray be gentle, little sister,  
Softly touch those painted wings!  
Butterflies and moths, remember,  
Are such very tender things.”—*Brownie*.





## The Herbaceous Border.

"The glow of bright colour which is thrown over our gardens in September and October by asters, sunflowers, soldagos, and dahlias is one of the most valuable gifts that fall within the compass of horticulture, for which the old world stands indebted to the new."—J. G. BAKER.

**D**URING the month of October there will be a good deal of work to be done in the border in regard to cutting down the stems of dead and decaying flower stalks and leaves of plants, also forking over and mulching the border. All bulbs and tubers such as gladioli, dahlias, begonias, &c., should be lifted and stored about the end of the month. All spaces where bulbs, annuals, tubers, and summer-flowering plants were situated should be filled up with bulbs such as daffodils, crocus, narcissus, spring and May-flowering tulips. Biennials—wallflowers, Canterbury bells, forget-me-nots, silene pendula, sweet William, &c.—should be also planted out; also plants of polyanthus, hybrid primroses, and violas.

Cuttings of herbaceous plants struck under glass last July should be by this time fit to put out. Carnation layers should be put into their flowering quarters this month.

A great deal depends on the person in charge of the border planting at the proper season in order to secure a display of bloom for the longest possible period. All plants marked during their flowering season as unfit for their quarters—in regard to colour or height—can be put into more suitable positions in the border.

FRANK HUDSON.

## Michaelmas Daisies.

**M**ICHAELMAS DAISIES are extensively used for the autumn decoration of herbaceous borders.

They have undoubted qualifications for popular favour. They display considerable variability as to size, ranging from the dwarf Alpine species of the Himalaya, from about an inch high, to the tall and much-branching forms of *Nova-Anglie* that may grow to a height of eight or ten feet. They are all hardy in our climate, and not the least particular as to soil, and produce, as we all know, in late season charming star-like flowers of various shades of colour—white, pink, blue, purple—in great profusion. They belong to the genus *Aster*, which in turn is included in that immense order of plants—the Compositæ—that enrich our

gardens at all times with such a wealth of beautiful flowering plants. The genus itself is large (over 250 species), its head centre being in the United States of America. A large number of our cultivated forms are hybrids. According to Mr. Denver, most of these are crosses between *lævis* and *Novi-Belgii*.

As before stated, these asters will grow in any ordinary garden soil, but those planted in the border will well repay deep cultivation and generous treatment as to feeding. They may be increased by division of "root" in autumn or spring, or by cutting in April or May.

The late Rev. C. Wolley Dod advised an annual division of such forms as *Novi-Belgii* that produce runners, stating that small detached pieces, showing in spring only two or three shoots, make by autumn the best plants, and have the finest flowers. They must neither be crowded by having other plants near them nor have the stalks too close on each plant. The best time to divide is early in the year, so soon as the spring growths have made an inch or so of shoot above ground. As these close-growing kinds tend to exhaust the soil of the border it will be necessary to supply an annual mulch of well-rotted manure. Varieties of the *Amellus* section may be left undisturbed for three or four years or more.

In a garden with plenty of available space the taller varieties of asters may be grown in clumps or separate beds with great effect. With plenty of room, they produce a large number of laterals that flower abundantly. The flowering period of these asters ranges from August to October. A very pretty little aster is *A. acris* and its varieties. It varies from 3 inches to 3 feet, and has blue flowers that appear in August. *Amellus*, the most handsome of the European asters, is a plant of neat habit, and free-flowering, the flowers appearing also in August. The *Nova-Anglie* group supplies a number of fine forms, of which *pulchellus* may be specially mentioned. These species will carry the flowering through September, while the varieties of *Novi-Belgii* will continue it right on to the end of October. In addition to these, all members of the *cordifolius* group will be found good and useful, while the pale, pink-flowering *Ericoides* and white-flowered *diffusus* (varieties *horizontalis* and *pendulus* being, perhaps, the best) are excellent for rockeries.

The use to which asters may be put is infinite. They may be used not only for the border and rockery, but for bedding purposes, borders of woodlands, bays in shrubberies, or intermixed with clumps of evergreens. Wherever you plant them they are almost sure to grow, and will brighten up the colour-dulness that so often prevails in the garden before the leaves take on the varied tints of the declining year.

**STORING OF SEEDS.**—The majority of seeds naturally pass into a resting state after ripening. The ripening process is associated with an accumulation of reserve food and a drying off. During the period of "rest" the seed is by no means lifeless. Certain well-known oxidation changes are slowly taking place, accompanied by the formation of small quantities of carbonic acid gas and water. Ferments are also formed, needful in the subsequent digestion of the reserve food during germination. During this naturally dormant period seeds should be kept dry and cool, as dampness and a sufficiently high temperature in the presence of the oxygen induce an unhealthy condition, which in turn render the seeds more liable to the attacks of moulds and other fungi. A free circulation of air is very adverse to fungal growth. Seeds, therefore, should be kept in a dry, cool, airy place if we are to preserve their full health and germinating power.



## Lobelia Morning Glow.

By C. F. BALL, Royal Botanic Gardens, Glasnevin.

**T**HIS new lobelia is not yet in commerce, but is a plant likely to make its mark when distributed. At Glasnevin the lobelias are grown in several places—in beds mixed with gladioli, also in peat, but it is in the bog bed near a pond where these plants reach their highest development. Here, planted in groups overtopping the greenery of cyprus, iris, and rushes, they give a most gorgeous and striking bit of colour. *Lobelia Firefly*, a dazzling vermilion scarlet, has reached nearly five feet high, but is beaten by its new neighbour *Morning Glow*, which is about six feet high. *Firefly* is certainly a good lobelia, with long, narrow, glabrous leaves, and shining, bronzy stems, which seem to enhance the brightness of the flowers. *Morning Glow* has a stronger and more sturdy stem and broader leaves, both stem and leaves being covered with downy hairs. But the inflorescence is a distinct advance on *Firefly*, the flowers are much more numerous and closely set, the inflorescence itself being two feet in length. Abundance of side shoots continue to flower after the main spike is finished.

*Lobelia Lord Ardilaun* has flowers of a softer shade of scarlet, and the foliage is reddish in colour, similar to the old *Lobelia Queen Victoria*. This and the two former mentioned plants have been raised by Mr. A. Campbell, gardener to Lord Ardilaun, at St. Ann's, Co. Dublin. At St. Ann's these lobelias are quite a picture in the autumn: large oval beds, each containing several hundred plants of one variety, give quite a mass of colour, but planted in ordinary flower beds their habit is smaller and more suited to this mode of culture. All the hybrid lobelias enjoy a rich soil with plenty of

decayed manure; they do well in partial shade or in the open, the latter for preference if the water supply is good.

In the colder parts of England the roots are taken up after flowering and packed close together in boxes of soil, and put in a frame or cool house. In spring, in order to get strong spikes of flower, the crowns should be separated and potted off or transplanted singly into boxes to get strong for planting time. At Glasnevin they remain in the ground without protection,

and the frost seldom injures them. It is a curious fact that those in the bog bed, which is sometimes flooded in winter, are more immune than the others. In spring, after they have started to grow well, they are lifted and divided. A hole is taken out to eighteen inches or two feet, and in this is buried a good layer of cow manure, and the soil is placed on the top, in which the divisions are planted; then they are usually no further trouble.

The lobelias are not difficult to cross. They belong to a section of *Campanulæ*, which has the corolla two-lipped or irregular. The anthers are connate and protandrous—*i.e.*, they are joined together so as to form a tube, and also ripen before the stigma is ready for fertilization.

The stigma is hairy,

and during its growth brushes out the pollen before the stigma becomes stigmatic. The receptive state in which to apply the pollen is when the stigma has expanded into a bifid knob. The pollen of the lobelia is oval in shape, differing from the *Campanula*, in which it is spherical.



[Photo by]

LOBELIA MORNING GLOW.

[Mr. C. F. Ball.]

Photographed from Specimens grown in Botanic Gardens, Glasnevin.

"STAND back, bewildered politics!

I've placed my fences round;  
Pass on with all your party tricks,  
Nor tread on holy ground;

Stand back—I'm weary of your talk,  
Your squabbles and your hate;

You cannot enter in this walk,  
I've closed my garden gate."—Dr. C. Muckay.

## “IRISH GARDENING.”

AN ILLUSTRATED MONTHLY.

OFFICES—53 UPPER SACKVILLE STREET, DUBLIN.

### “Arbor Day.”

By ARCHIBALD E. MOERAN.

PEOPLE who pride themselves on their shrewd, hard-headed knowledge of forestry have been accustomed to scoff at Arbor Day and its possible results, because they say these results are not practical but only sentimental, and therefore of no value, and not to be encouraged. Shrewd and hard-headed they may be, but in this they are wrong—I am not afraid to say it—absolutely and entirely wrong, and when they go deeper into the subject they are bound to admit it.

Arbor Day planting, these people say, will only result in little groups of trees scattered here and there, in rows of single trees by our roadsides and along the streets of our country towns, and in ornamental trees round places of worship, school-houses, court-houses, fair-greens, and such like places.

This they say is not afforestation at all. Afforestation means the planting of millions of trees in big blocks up in the waste mountain sides, with the three-fold object of greatly increasing the returns from such land, of providing a certain store of timber against coming famine, and of giving a vast amount of employment in the planting and care of these woods, and in the wood-working industries which could be developed through them.

Afforestation is what Ireland stands in need of, and since at first sight Arbor Day does not seem to help to accomplish this it is condemned as a false trail. Now, it may be a change of foxes, but it is not a false trail, and I am anxious to persuade the readers of IRISH GARDENING of this, because there is not one of them but has it in his or her power to appreciably advance the cause of afforestation by adopting the Arbor Day custom.

If the Secretary of the Irish Forestry Society (12 College Green) is written to he will send at once pamphlets describing the scheme, and how it is suggested that it should be carried out, and advice on technical matters of planting can also be had from him free of cost. Arbor Day has been fixed for the 1st of November, but as this year that falls on a Sunday, Saturday, the 31st October, is the day on which everyone who wishes their country well enough to take a little trouble for it is asked to try to arrange to plant even one tree. The Irish Forestry Society very rightly are specially anxious that managers and teachers of schools

should on that day get the children to plant trees in the school grounds, and caretake and safeguard them afterwards. Some small ceremony should be observed to impress the little ones, and perhaps the right to plant a tree should only be granted as a sort of prize to the best behaved. The master of the ceremonies, who should have been in communication with the Forestry Society, and received from it leaflets on the subject, should explain to the children some of the elements of forestry and what it has done for other countries. It will be natural that those who have planted trees will take the keenest pride and pleasure in their growing, and this can be developed into the blessed gift of love for all trees and an understanding of their advantages. Of course, “grown ups” are asked to plant too—County Councils, Urban Councils, District Councils, private individuals. It is easy to see how each can further the scheme, not by the number of trees they plant so much as by the fact that by planting any at all they widen and strengthen the growth of a feeling all over Ireland favourable to forestry and to forestry schemes instead of the existing apathy or even hostility. This is not a matter of small importance. It is almost impossible to exaggerate how vitally necessary it is to the success of whatever State scheme we are to be given. The United States Forest Service was faced with just this trouble, but at considerable expense and with infinite patience, trouble and tact through several critical years it set itself to educate the public to appreciate it—the Forest Service and its objects—at their real value. In this it succeeded, and its extension has since progressed by leaps and bounds.

Newspaper and magazine articles and other literature are, of course, of the greatest help, but the wide circle of people who skip such articles, and the wider circle whom they never reach, are ungetatable except through some such scheme as a tree planting day, which, if it were widely adopted as it has been in other countries, would awaken an interest in forestry that would ensure the success of whatever preliminary scheme we are to be given, and render easy its development into a great national factor towards the prosperity of our country.

I had intended to say so much about the immediate and direct advantages of Arbor Day planting, of cosy homes being sheltered from harsh winds by warm, green groves, of the wide, bare, wind-swept, sun-scorched, rain-bedraggled streets of our country towns and villages transformed into leafy boulevards, of added comfort for beast as well as man, but space forbids, and I will only say this—Is it not a very striking and a very fascinating thought that there is not one of us but has it in

his or her power to bring for generations to come some added pleasure and comfort into the daily lives of perhaps thousands of our fellow-countrymen? As Keats has sung—

"A thing of beauty is a joy for ever,  
Such the sun, the moon,  
Trees, old and young, sprouting, a shady boon."



It is particularly requested that all those who contemplate even the most modest Arbor Day planting will put themselves in communication with the Secretary of the Irish Forestry Society, 12 College Green, Dublin.

A GENEROUS offer has been made by Mr. Alex. Dickson, who offers to give, free of cost, 6,000 young trees to be planted by school children on Arbor Day. Application for these trees should be made direct to Mr. Dickson, at 50 Essex Street, Dublin; or Nurseries, Dundrum.

At the National Rose Show held on the 17th of last month in London, Ireland took premier position with regard to honours, and this in a competition in which "the quality of the collection was the chief subject of astonishment, considering the recent unfavourable weather." Messrs. S. McGredy & Sons, of Portadown, were awarded two gold medals for the best new seedling roses—one for "Lady Alice Stanley" (silver pink), and another for "His Majesty" (rich crimson). Similar honours were bestowed upon two other new roses exhibited by Messrs. Alex. Dickson & Sons, Ltd., of Newtownards, one "Dr. O'Donel Browne" (bright crimson hybrid), and the other "A Grey Hill" (lemon-coloured). Mr. Hugh Dickson, of Belmont, and Messrs. Alex. Dickson & Sons secured two out of the three silver medals that were awarded for the best blooms in the show.



IN THE GARDEN OF BANCHORY HOUSE, HELEN'S BAY, CO. DOWN.

Behind the brilliant rose (*Suzanne Marie Rodocanachi*) stands Miss Barbara, the little daughter of W. H. Calvert, Esq.

AMERICAN GOOSEBERRY-MILDEW ON CURRANT BUSHES.—Mr. E. S. Salmon, in a communication to the *Gardeners' Chronicle*, states that he has this season found the American gooseberry-mildew on both the red and black currants in England. He states that in the case of the red currant he has discovered the characteristic brown, felted mycelial patches, being the perithecia (that contain the winter-resting spores), on the under surfaces of the leaves. (In the gooseberry they have only been found on the stems and fruit—never on the leaves.) The affected specimens of black currant were found in Kent.

BLACK-SCAB (WART DISEASE) OF POTATOES.—The English Board of Agriculture has scheduled this disease under the Destructive Insects and Pests Order

of 1908. The disease appears to be spreading in England, as cases have been reported from Cheshire, Derbyshire, Dumfries, Lancaster, Leicester, Merioneth, Salop, Stafford, Warwick, and Worcestershire. As the disease is not yet reported as having appeared in Ireland, potato-growers are again warned to examine their stock, and particularly any "seed" imported from Great Britain. The disease is described and illustrated on page 120 of our issue of last August. To keep our potato crop free from this most destructive fungal pest is obviously a matter of considerable importance to the country.

ROSE CANKER.—A specimen of canker said to be common on roses in Ireland was exhibited by Mr. H. T. Güssow at a recent meeting of the Scientific Committee of the Royal Horticultural Society of England. The canker starts as reddish spots on the shoots, which soon die, and as they dry contract and form cracks. The margins of the wounds rapidly callus; but as this tissue frequently gets damaged with frost, &c., large cankerous growths are produced. Mr. Güssow attributed the beginning of the trouble to the fungus *Coniophyrium Fuckeli*, being the conidial form of a *Leptosphaeria*.

EFFECT OF SEVERELY PRUNING LABURNUM.—At the meeting of the Scientific Committee of the Royal Horticultural Society of England on September 1st, Mr. George Gordon stated that he had at the present time in his garden at Kew, a laburnum in full flower. The tree had been in its present position for fifteen or sixteen years, and, getting too big, he had all its branches cut back to within three or four inches of the main stem. The tree threw out shoots from the cut stumps, and about two-thirds of these produced terminal racemes of flowers which were much larger than the normal.

THE Royal Horticultural Society of England, in union

with the Fruit Growers' Association, will hold a conference on the spraying of fruit trees on the second day (October 16th) of its annual exhibition of British-grown fruit in London. An interesting discussion is expected.

When the leaves are falling, hear the moorland calling,  
Deep it lies in purple, a mantle for a queen.  
And it's Oh! the heather, and the clear grey weather,  
And the brown that's dearer than the green.

When the leaves are falling, hear the moorland calling,  
And the heart gives answer—Aye, the green is dear.  
But it's Oh! the heather, and the clear grey weather,  
And the red and brown and gold that crown the year.

## The Chrysanthemum.

### GENERAL NOTE.

THE numerous varieties of Chinese and Japanese chrysanthemum that form such a charming feature of our gardens in autumn have all been developed within the last 100 years. They have been produced by selection from *C. indicum* and *C. sinense*, these being really geographical forms of the same species. This chrysanthemum was first introduced to these islands in 1790, having been sent to Kew Gardens by M. Cels, a French gardener. The Japanese variety was not introduced until the year 1862, but since then it has been a great favourite, and to-day is one of the most popular of flowers. The recognised garden forms of chrysanthemum are—(1) Incurved, (2) Re-curved or Reflexed, (3) Anemone-flowered, (4) Pomponé, (5) Japanese.

### RIPE WOOD ESSENTIAL.

The chrysanthemum naturally forms stems that are woody below, and it is important that growers of these plants desirous of securing the best possible blooms should encourage that firmness of stem that is associated with perfect flower formation. Light is the one great essential for the proper ripening of the "wood"; therefore, in a comparatively sunless summer the plants should be kept more widely apart, so that the stems and foliage may receive as much light as possible. At all times any condition that tends to produce softness of stem should be avoided, such as too loose potting, over-crowding, and over-feeding during the period of vegetative growth. One sign of ripeness is the bronzing of the leaves towards the end of September. It is a physiologically wrong principle to strongly force the growth of the plant during the summer and then to suddenly attempt to induce ripeness by withholding water. Ripening is a gradual process.

### FEEDING THE YOUNG FLOWERS.

When the vegetative growth is over and the flower buds begin to swell, judicious feeding will then be beneficial. The best method is to feed frequently with a very weak liquid manure. The best growers take care to vary the character of the food. They use in alternating succession such things as cow or sheep manure, soot, bone meal, guano, or artificials. When feeding roots are seen running on or near the surface of the soil they may be covered with a layer of rich loam, well-rotten farmyard manure or cow dung.

## Early Flowering Chrysanthemums.

By P. J. GRAY.

MANY cottagers and others having small gardens and no glass accommodation are under the impression that the chrysanthemum is beyond their reach, and cannot be grown without the aid of a glass-house. On the contrary, protection is only necessary for the late flowering kinds, and there is an early flowering section suitable for cultivation out of doors. These produce their blooms in great profusion, variety and form during the late summer and autumn months until destroyed by frost, and thereby supply a great want in the flower border when flowering plants are scarce. The blooms are invaluable for cutting, as they keep fresh for a long time when placed in water, and this qualification alone should find them a place in all gardens.

Varieties of the Japanese, or large flowering section, are now much used for border planting, and within recent years many new kinds of exquisite form and

colour suitable for this purpose have been added to an already extensive list. Many of the Pomponé section are early flowering, and although the blooms are not so large as those of the Japanese kinds, yet they are useful on account of their dwarf habit.

As regards cultivation, cuttings of good varieties may be obtained from a nurseryman or grower in March, and with a little heat these may be rooted and had ready for planting out at the proper season, or, better still, rooted plants may be purchased in April or May fit for putting out at once. For a beginner a few rooted plants are best, and the following season it is easy to increase the stock by cuttings or division of the old plants. The chrysanthemum requires a rich soil, and some time previous to planting some well-rotted manure should be incorporated with it. When planting the soil around the roots should be undisturbed. Plant firmly, and leave at least two feet between the plants to allow for proper development. When the plants are growing freely they may be stopped by pinching off the points of the leading shoots; this induces a dwarf or bushy habit of growth. Give plenty of water in dry weather, and apply weak liquid manure once or twice a week when the flower-buds begin to appear. The leading shoots require support by staking, otherwise they would get broken by high winds. If large blooms are required some of the flower-buds may be removed while they are small. When planting arrange the colours in groups separately, and keep tall growers at the back of the border and the dwarfier kinds towards the front.

There are a great many good varieties to select from, and the following can be relied on to give complete satisfaction:—Japanese Polly, bronze yellow; Goacher's Crimson, rich deep crimson; Perle Rose, pink; Ralph Curtis, creamy white; O. J. Quintus, mauve pink; Nina Blick, reddish terra cotta; Pomponé Veuve Cliquot, reddish bronze; Mme. Edouard Lefort, red and yellow.

In conclusion, when the plants are done blooming and the stems begin to wither they may be cut down near to the ground, and with a little protection in severe frost the old stools will live through the winter, and may be divided into pieces and replanted the following spring.

## Sex in Plants.

THERE is at present a good deal of interest centred round the question of the determination of sex in living beings. Until quite recently the prevailing idea was that the chief controlling factor was food, or, in other words that the matter of sex was not settled until after the fertilisation of the egg, and that then the character and amount of food supplied to the developing embryo determined whether it would give rise to a male or a female. But recent work in botany has shown that in some species of plants, at all events, the question is settled at the moment of fertilisation. Correns, for example, working with the common bryony (*Bryonia dioica*), has shown that the germ cells have distinct sex tendencies. The bryony is a one-sex plant, some individuals being male or pollen-bearing and others female or ovule-bearing. It appears that all the unfertilised ova in the female plants have a tendency to produce females, while of the fertilising material in the pollen grains of the male plants half have male and half have female tendencies. By "tendency" here is meant that while each germ has both male and female potentialities, one sex tendency is always stronger than the other—that is to say, one will be active and the other latent. It is, therefore, a matter of chance what any particular fertilised ovum may produce in the way of sex. As in this plant it appears that maleness is a more dominant sex character than femaleness, it follows that if a pollen grain with male tendencies is the fertilising element, a male individual will result, whereas if

it chance to be one possessing the female tendency the result will be the production of a female. It is worth noting that G. B. Wilson, in recent investigations with hemipterous insects, has obtained results strikingly similar to those discovered by Correns in the bryony plant. Furthermore, it may be stated that the sex tendency of any reproductive cell can be determined by certain structural characters observable by means of a microscope. These observations, however, do not entirely exclude the possible influence of food, as it is conceivable that latent characters of either sex may be developed under special feeding.

This sex question was very fully discussed at the recent meeting of the British Association in Dublin, when Mr. L. Doncaster gave a lucid summary of the investigations carried on up till the present time, together with an account of his own breeding experiments with the gooseberry moth, which it is interesting to note falls into line with G. B. Wilson's purely microscopical studies.

## The Effect of Electricity upon Plants.

THE subject of the practical application of electricity to the growth of plants was introduced to the agricultural sub-section of the British Association by Sir Oliver Lodge, whose remarks covered practically the same ground as we summarised last month. Dr. J. H. Priestley, of University College, Bristol, who has had a good deal of actual experience with the particular system adopted at Bitton, Gloucester and Evesham, gave some interesting particulars concerning the results already obtained at these centres.

At Bitton the insulated conducting wires were carried about sixteen inches and at Gloucester five feet above the tops of the plants both in the open and in the green-houses. These wires were provided at intervals with short pieces of fine wire, hanging free end downwards, to act as discharging points. At Evesham, as mentioned last month, the wires were, for convenience of cartage, placed much higher. The results of electrification in the case of different crops were as follow:—

### (a) At Bitton—

Cucumbers, 17 per cent. increase.  
Strawberries (5-year plants), 36 per cent. increase.  
„ (1-year plants), 80 per cent. increase, and more runners.

Broad beans, 15 per cent. decrease, but ready for picking 5 days earlier.

Cabbages (Spring), ready for picking 10 days earlier.

Tomatoes, no differences.

### (b) At Gloucester—

Beet, 33 per cent. increase.

Carrots, 50 per cent. increase.

Turnips, an increase (slugs troublesome).

The amount of sugar yielded by the electrified beet was 1 per cent. higher than the non-electrified plants. Some of the results of the Evesham experiments devised by Sir Oliver Lodge were given last month.

One very interesting fact observed by Dr. Priestley was that in no case could he discover the presence of starch in the leaves of the electrified plants. He also found that in the case of the cucumbers a bacterial disease made its appearance, but that it made very little headway among the electrified plants, and he assumes that this immunity is due to the presence of some chemical substance in the cell-sap induced by the electric force. The physiological action of electrification is not at present understood, but a suggestion was made that one advantage may be the formation of oxides of nitrogen by the oxidation of free nitrogen, or of ammonia in the air.

## Current Topics.

By PETER BROCK, Horticultural Instructor, Co. Fermanagh.

THE weather for the past four weeks has for the most part been wet, windy, and sunless. In consequence of the long-continued inclemency autumn flowers and many other occupants of the garden have a battered look typical of their condition in other years a month nearer winter. Tall apple trees in exposed positions have been subjected to a severe thinning of fruit by the gales. Still, the greatest loss of all is falling on the farmers who have been busy on all favourable opportunities reaping the corn that has seldom looked better at the beginning of September, but which is now in a saturated state, and altogether in a sad plight in many places. It appears as if the prospects which at one time looked so full of promise are to share the fate of the milk pail which the cow filled and then kicked. However, the darkest cloud has its silver lining, and if it clears up soon we may hope for a spell of bright and bracing weather to dry the grain and complete the harvest. Such a change will be welcomed for the maturing of fruit and other trees before the rigours of winter set in.

Many young fruit trees are in a stunted condition this autumn, having made little wood or foliage, and only a few scraggy fruits, through want of moisture at the roots during the greater part of summer, due to being overgrown with rank weeds and grass. These will now be well moistured at the roots. It is, however, too late in the season for the moisture to make amends for the hoeing that should have been done to preserve the moisture required by the trees during the active growing season. Such trees are crippled in constitution and reduced in value, to say nothing of the time that has been lost.

The prevailing argument against hoeing is, that hay-making, cutting and winning turf, shovelling or moulding, and spraying potatoes, and in some cases reaping the corn and digging potatoes, must all be attended to before one hour can be spared to clean the dozen or so of fruit trees. It is an old and generally true saying that "where there's a will there's a way." However, those who plant fruit trees with no greater ambition to derive pleasure or profit from them than let them take chance against the robbing of rank weeds and grass in such a season as the past might as well let fruit-growing alone.

Several fruit growers in this county (Fermanagh) who last spring tried the new proprietary winter spray fluids, Cooper's V<sub>1</sub> and Voss's No. 1, were disappointed with the results on eggs of apple psylla, aphidæ, winter moth caterpillars and mussel scale; although in some cases, especially where the spraying was done late, the above pests appeared to be considerably reduced. Besides acting as insecticides, these fluids were reputed to be a remedy for the well known apple and pear scab, *Fusicladium*. Their effect in this line, as fungicides, is now well marked in nearly all the experiments tried last spring, as trees that previously produced fruit of little commercial value owing to scab are this year greatly improved in this respect. There is ample proof that the date and the condition of the atmosphere when spraying is done tend to produce varying results, as there is a difference in favour of spraying late—just before the buds open—against the spraying done early in February; also applying it on a dull, hazy day appears to give better results than under a bright sun and quick-drying air. The experiments have been carried out on reputedly scabby trees of such kinds as Wellington, Scarlet Crofton, Blenheim Orange, and some nameless local sorts.

## A Model Exhibit for Amateurs.

THE accompanying illustration shows a collection of vegetables and flowers grown in a county horticultural demonstration plot in County Roscommon, and worked under the Roscommon County Committee's Horticultural Scheme. The collection was exhibited by Mrs. Flynn, of Ballygalda, at the Midland Counties Horticultural Associations Show held in Athlone on the 20th of August last.

This plot, which only contains 36 perches (statute measure), was established in March, 1907, at which time it was nothing short of a wilderness, is now turned into a neat, well-kept garden, in which is grown about 20 kinds of vegetables in about 38 varieties, also a quantity of flowers (chiefly sweet peas) and fruit, including apples, pears, plums, strawberries, raspberries, gooseberries, and currants.

The vegetables sold out of this garden the first season realised £6 10s., and the quantity utilised at home were valued at £7 10s. This equals £14 made out of a piece of ground which was ten months before practically

were the crowds which were drawn to it. The judge was simply in ecstasies with it, and said he never saw such a praiseworthy piece of work in his life."

—ED. I. G.]

**TRANSPLANTING SHRUBS**—The present month is perhaps the best in the year to transplant shrubs. This is largely due to the fact that owing to the atmospheric condition of the time, the loss of water by transpiration is so very much reduced, and the soil being still warm and the shrubs still active, there is time while the conditions are favourable for the formation of new roots before the seasonal period of rest sets in. If convenient, therefore, all intended shrub planting should be done forthwith. Care should be taken to injure the roots as little as possible in transplanting. In replanting make the hole wide enough to accommodate the roots when fully extended, laterally—straighten out the roots and cover them with fine earth, taking pains to keep the root branches springing from different levels, separated by layers of this fine earth. Firm down the earth moderately and water it thoroughly. When the planting is



Photo by]

[G. V. Simmons, Athlone.

### ATHLONE SHOW.

Prize Exhibit staged by Mrs. Flynn of Ballygalda.

waste. The cost of labour was practically nil, as the work was carried out in the evenings, after other farm work had been done, by her own son.

The collection here illustrated was awarded first prize and a special, and was stated by the judges to be the best exhibit ever staged in Athlone since the establishment of the association six years ago. The photograph was taken by Mr. Simmons, Athlone.

E. H. BOWERS, Horticultural Instructor.

[It may be interesting to add, in addition to the above note by Mr. Bowers, that The *Westmeath Independent*, in its report of the show, said that "it was admitted by judges that in no show in Ireland had its like yet been seen," and further that "there was a fascination in its arrangement which compelled one to stand and gaze and wish he had the ability and the power to do the same. During part of the day it was impossible to get a look in at this little wonder, so many and so great

done cover with a mulch of well-rotted, farm-yard manure, as this will check evaporation and tend to conserve the soil warmth. Until the roots have time to grip the soil in their new surrounding it will be helpful to stake the plants in the event of strong winds.

THE Piltown Fruit Growers' Association hold a two-day fruit show in the Town Hall, Waterford, on the 6th and 7th of the present month. The object of the association is stated to be "to bring Irish-grown fruit before the public." Most of the classes are open to all Ireland. Mr. J. Dearnaley, of Piltown, is the hon. secretary.

THE Annual Chrysanthemum Show of the Ulster Horticultural Society will be held in Belfast on the 10th and 11th November next. The Prize Schedule is now in circulation, and may be obtained from the secretary, Mr. J. MacBride, 1 Adelaide Street, Belfast.



## October. The Month's Work.

### The Fruit Garden.

By GEORGE DOOLAN, Instructor in Fruit Culture,  
Department of Agriculture.

**ROOT-PRUNING.**—Now is the time to carry out this work, the advantages of which are to check undue luxuriance in growth, to promote the formation of fruit spurs and fruit buds, and the consequent fertility of the tree.

Apple, pear, and plum trees which are growing very vigorously and not bearing fruit should be treated, but young trees will need to be treated differently to older ones. In the case of young trees up to the age of nine or ten years, lifting and replanting will give sufficient check to bring them into bearing. Care must be taken, however, in lifting the trees to preserve all the small roots. All broken roots should be cut with a sharp knife; downward roots also must be cut back. A fork should be used in lifting the trees, removing the soil well out from the stem of the tree, and gradually work onwards. In replanting, which may be done in the same place or in fresh ground, do not put the tree too deeply in the ground; fruitful roots like the surface. Add a little fresh loam with lime rubble or road-scrappings. Press the soil very firmly over the roots, and drive a strong stake into the ground, to which the tree should be tied with a bay-rope. This is very necessary, as the tree would otherwise be much injured by winds. A mulch of manure over the surface of the roots is of much benefit, and may be renewed in the spring.

**OLD TREES.**—In root-pruning old trees the operation is most successful when portion of the roots are pruned, and the rest done the following autumn. In this way the tree does not get too severe a check. As in the case of young trees great care must be taken to preserve all the small and fibrous roots. Cut only the thick roots going deeply into the soil. When removing the soil do not commence closer than five feet of the tree, as there is a danger of injuring the small roots. Add a little fresh loam with lime rubble, &c., about the roots when covering them, and make the soil very firm. It is well to remember that root-pruning should not be lightly taken in hand. There is always a danger, unless an experienced person directs the work, of the roots being hacked too severely and the tree permanently injured. It must also be remembered that it is only the vigorous, unfruitful trees should be root-pruned, and if the work be judiciously carried out good results are sure to follow. In two years a crop may be expected. Should any variety still refuse to bear cut it back and graft with a good bearing variety. This, however, is rarely necessary.

**GATHERING FRUIT.**—Many varieties of apples and pears will, during this month, be fit to pick, and the gathering and storing of all the finest fruit will require close attention. To find out when fruit is fit raise it gently, and if it parts from its hold readily it is ripe. Another test is to cut the fruit through the centre, and if the seeds be of a brown colour the crop may be taken

as fit to pick. Nearly all varieties improve by being stored some time before using, especially dessert fruit. Store only the best specimens, using all small and blemished fruit.

**GENERAL REMARKS.**—Where old raspberry canes have not been cut out have them removed immediately and a dressing of manure placed on the surface. This will be of great help to the new canes. Keep the ground clear of weeds, and use the Dutch hoe whenever possible. This year has not been so bad for weeds as last season, and they have been kept very much in check by the use of the hoe. Suckers arising from the roots of plums and apples should be dug out, and any trees loosed by wind should be made firm by the foot, and stakes placed to them if necessary. September gales do a lot of harm to young standard trees that are not fully established in the ground. Therefore, at this season of the year the fruit-grower should go over his trees and see whether they require attention.

### The Flower Garden.

By J. G. TONER, Horticultural Instructor, Co. Monaghan.

**SHRUBBY CALCEOLARIAS.**—The propagation of these bright and useful plants may now be taken in hand. It is usual to put the cuttings in pits or frames, but failing these useful, it may be said, indispensable appliances they may be successfully managed in boxes placed in cool structures, a little protection being afforded during hard frost. Any good soil may be used, and plenty of sand should be added, and also spread over the surface, so that in using the dibber, which may be blunt at the point, some of it will be pressed down and form a suitable base for the bottom of the cutting to rest on. Cuttings should not be crowded, as this is often the cause of damping. About three inches each way would be a suitable distance, and they should be made quite firm and kept somewhat close for some time afterwards.

**HOUSING CHRYSANTHEMUMS.**—A thorough washing of the inside of houses intended for flowering chrysanthemums should be given, using a cloth on the glass and a scrubbing brush on the woodwork. Soft soap and warm water will make the work easy and effective, and, if possible, the arrangements of supports to plants should be finished before they are put inside, and when this is done a thorough fumigating will be necessary and beneficial. On the opening of the flowers observe, as far as possible, a fairly dry and even temperature always, except in very severe weather, leaving some ventilation, and always get through the watering as early in the day as practicable, remembering, too, that the slower the development of the bloom the finer they will be.

The potting up of hyacinths, narcissus and tulips, if not seen to last month, must be done at once, and the pots plunged according to directions given last month. Early batches of freesias may be brought on gently in a light position.



If it is considered advisable to save any of the bedding plants that have done duty this season they should be potted or boxed up at once and placed under cover. Ivy leaved geraniums, heliotropes, and many others will be found distinctly useful if treated in this way, and will, besides affording plenty of cuttings in spring, fill and beautify many a corner next year.

**CARNATIONS.**—Many of these will now be pushing on their flowering growths and blooms. A little heat and plenty of air may, with great advantage, be afforded, and watering must be skilfully performed, as plants of this family are certain to decline in health if too much water be afforded.

Zonal pelargoniums, cyclamens, primulas, &c., will be greatly benefited by being treated to a little heat, and where the plants are large and the pots comparatively small a little weak liquid manure may be given at intervals of a week or so.

Outdoor garden work will consist of planting of carnation layers in their permanent positions. Plants put out at this season invariably do better than those planted in spring. Many changes may be made, too, in the herbaceous borders. Large clumps or old plants can be lifted, divided and planted according to taste or demand for certain colour or kinds of flowers. Bulbs of all sorts can be got in at the same time, but for ease in working in the future all these should be marked or named. All dead flower or growth stems should be cut down, and in a general way borders of this kind made as presentable as possible. When dahlias have been destroyed by frost, which will occur during the first sharp visitation, the stems should be cut to nine inches or one foot from the soil, the roots carefully lifted, and when fairly dried should be stored carefully in a dry and cool place where frost cannot possibly reach them. If named varieties are grown the labels must be carefully attached; if not, the colour and description may, with advantage, be written on paper or wooden labels and tied on each, and will save much confusion and misplacing next season.

Cuttings of violas and pansies may still be put in, or where the old plants have been cut down some time ago they may now be lifted and divided.

Put in, if desirable, cuttings of roses, evergreen and deciduous shrubs. A place will always be found for nice little plants, or friends may be induced to take an interest in their cultivation on being presented with a few of home manufacture.

## The Vegetable Garden.

By WILLIAM TYNDALL, Instructor in Horticulture,  
Co. Kildare.

**TRENCH** over or dig deep all ground as it becomes vacant, leaving the surface as rough as possible. Long, narrow hedges on heavy ground is probably best, allowing the frost to penetrate better, and giving a neat appearance to the plots throughout the winter. Ground so treated will be worked easier in the spring. During this month take up carrots and beet, and store in sand, either in a dry cellar or pit (as is done with potatoes), putting plenty of dry sand among the roots. Choose a dry day for lifting, as the roots will keep much better if stored when dry. Some people cut off the tops of carrots entirely, including a small portion of crown, to prevent them growing, but this should not be done. In lifting beet do not cut or break the roots, as they bleed if broken, and for the same reason the leaves should not be cut, but twisted off, three or four inches from the crown. Both these vegetables should be stored before frost comes on. Parsnips and salsify are seldom injured by frost, and are, therefore, generally left in the ground and dug up as required for use, yet it is

always safer to lift a portion of the crop if severe frost looks like setting in, as it would be impossible to lift them when the ground gets very hard. Take up the remainder by the end of February, and store, as recommended for carrots, in a cool place, as under a north wall. All potatoes should now be taken up in dry weather and put into pits, in a dry place, covering with straw and mould to keep from frost, damp and light. Often much harm is done potatoes by lifting when too wet, and this frequently occurs when the crop is not lifted, as we so often see it in this county, till November, and also storing away, in large quantities, over one another. It is a good plan, when storing, to have holes filled with straw every three or four yards along the top of pit, so as to prevent heating. It is always better, when picking the potatoes, to first gather the large, or those fit for table use. Then the seed should be picked and put into sprouting boxes, and if allowed to become green before putting into a cool but frost-proof building, they are all the better. In such a place they can be examined during the winter, and any bad ones picked out.

**CAULIFLOWERS.**—Plants raised from seed sown in August should be transplanted into shallow frames or hand lights, where they are to remain during winter. The soil should, if possible, be a good loam (don't use manure), and made firm before planting; the lights need not be put on till frost is anticipated, and during winter give as much air as the nature of the weather will permit, also dibble out at foot of south wall.

**LETTUCE.**—Lettuce planted early in this month often stand the winter better than those planted in September, and, at all events, they will form a useful succession. Select good, hardy varieties as Hardy Green Hammer-smith, Winter Pearl, or Stansted Park, and plant on a dry, sheltered border.

**PEAS.**—During this month peas for the earliest crop next year may be sown on a warm, south border, fully exposed to the sun. William I., improved, is a most useful, hardy variety for sowing now. If the ground has been deeply dug and manured, open very shallow trenches, 2 inches deep and 10 inches wide, sow seed thinly, drawing the soil up to cover about 3 inches deep. The lines may be about  $3\frac{1}{2}$  feet apart. As soon as the peas are sown, stake with small, withered spruce branches; these help to prevent the birds taking the seed and also shelter the plants when up. Sutton's Ringleader is another good, hardy, early variety.

**BEANS.**—Broad beans may also be sown during this month, and, if they survive the winter, should be fit for use early in June. The Mazagaw bean, on account of its turning in early and hardness, is one of the best to sow now, for though the beans are small, it yields a heavy crop. Plant in double rows, 2 to 3 feet apart and beans 4 inches apart in the rows. Beck's Green Gem is also good.

**ASPARAGUS.**—The stalks of asparagus may now be cut down and removed, then hoe the beds, removing all weeds. The asparagus being hardy, in most soils it is better to defer the manuring till spring.

## The Value of Fruit as Food.

**THE** planting season is now almost at hand, and a word or two to our readers on the value of fruit as food may perchance induce some who might not otherwise plant to do so during the ensuing autumn months. Every family having suitable ground at its disposal should certainly provide for as long a supply of fruit as possible, so that each member of the family may benefit in health from the use of perhaps the most valuable of all kinds of human food.

Fruits are too often regarded as luxuries to be indulged in only occasionally, or at best as adjuncts to food, and

not as in themselves a complete and sustaining diet. Yet a suitably mixed fruit diet contains all the nutrients required by the body in their proper proportions and in an available form. This at least shows that, taking as a whole, fruits afford a self-sustaining nutriment for man. But we are not of course advocating a purely fruitarian dietary, but only attempting to make clear the value of fruit as an every-day food. It is recognised too by physiologists that fruits aid the digestion of other foods, while there is no doubt that the organic acids and other substances peculiar to fruit greatly assist in the solution and removal of useless or waste material in the body, which, if allowed to accumulate unduly, may give rise to indifferent health, and perhaps premature old age. This is why many health reformers look upon fruit as curative as well as nutritive in its function in the body.

A child's love for an apple is due to a natural craving for what its system really requires, and it is a desire that ought, as far as possible, to be reasonably satisfied.

In planting apples for use in one's own home care should be taken to select such varieties as will give a succession of fruit throughout as lengthened a period as possible. Full information respecting such planting will be given in these pages in the hope that it will prove helpful to those who intend either to start new plantations or extend already existing ones.

## Cookery Notes.

### Apples.

**FROM** the first recorded garden the apple has held its own, first among its fruits. Every housekeeper should stock and use it as freely as she does the potato. Uncooked, the apple forms a pleasant and healthy food, while cooked it is, in addition, beneficial as a laxative. It has an advantage over most fruits in that it stores well and loses nothing in the keeping.

**APPLE OMELET.**—Stew and then thoroughly mash enough apples to fill a large baking dish. Sweeten to taste. Mix one tablespoonful of butter into the fruit, and let stand till cool. Beat three or four eggs, and stir briskly into the apples. Place in a baking dish in a rather quick oven, and bake till brown.

**BAKED APPLES.**—Place side by side in a deep baking tin apples peeled and cored. Pour over the whole a syrup made of sugared water. The inside of the apples can be first stuffed with chopped nuts and lemon or orange peel, or with jam. Bake in a slow oven. The juice will be found to form a jelly. Serve hot or cold.

**APPLE FRITTERS.**—Make a batter by smoothly mixing one cup of flour, one teaspoonful of baking powder, and a pinch of salt. Stir in a well-beaten egg mixed with milk till a smooth, fairly thick batter is obtained. Peel and cut the apple into slices. Dip into batter so that each slice is covered. Fry. Sprinkle with sugar; serve hot.

**QUEEN PUDDING.**—Nearly fill a fairly sized baking dish with bread crumbs. Separate the yolk from the white of an egg. Beat and mix the yolk with a pint of milk. Sweeten slightly, and flavour with lemon or vanilla. Pour over the bread crumbs, and mix the whole well with a fork. Put in oven, and just set. Take out of oven, and when cool cover thickly with apples which have been stewed, and sweeten to taste. Whip the white of the egg with a little sugar, and flavour with lemon or vanilla as before, and spread over the top. Put into a warm oven for a few minutes to set. If required richer use two eggs.

**BAKED APPLE DUMPLING.**—Take several cooking apples, peel, core, and fill centres with sugar. Make a rather thin dough, and cut it into squares large enough to cover an apple. Into the centre of each square place an apple. Turn up corners, and secure by pinching. Put into baking tin. Pour over a syrup made with a

pint of water and a pound of sugar. Bake in quick oven for 40 minutes.

**APPLE ROLY POLY.**—Roll out a thin, sweet dough and spread with chopped apples. Sprinkle with sugar and roll. Place in a moderate oven and bake for an hour. If steam is preferred, steam for two. E. V. E.

## Promotion of Cottage Gardening.

**I**T is an extremely healthy sign that movements are now afoot throughout Ireland to interest the cottager and small holder in gardening and to organise local societies with the object of helping by suggestion and of creating, by prize-giving, that friendly rivalry in plant culture that is productive of such good results in all places where it has been seriously tried. In this connection a very interesting function took place on Saturday, the 5th of September last, at Stranstown, a suburb of Belfast, when an inspection was made of the gardens established under the auspices of the recently formed local Cottage Gardeners' Association.

"It was only in the spring of the present year," says the *Northern Whig*, "that an effort was made to establish a movement of the kind, and a piece of ground consisting of about three acres, and situate on the Holywood Road, was acquired and let out in small allotments to workingmen who desired to employ their leisure hours in light gardening, two conditions being that each plot should be bordered with flowers, and that at least six kinds of vegetables should be cultivated. Both stipulations have been faithfully carried out, with the result that the grounds have been converted from practically a derelict state to that of a richly cultivated garden, luxuriant with flowers, plants, and vegetables."

A large number of prizes were given for the best grown produce, and stimulating speeches were delivered by enthusiastic believers in the scheme. It is to be hoped that similar associations will be established in the vicinity of all our cities, towns, and villages. There ought surely to be at least one person in the community who has the public spirit and initiative to start an organisation that may mean so much to the workers and dwellers in our "man-stuffed towns."

Some very pertinent remarks were made by Sir John Byers, one of the speakers at the prize-giving, and one portion of his speech we particularly select for the ears of our readers:—"There were," he said, "many advantages associated with such a splendid scheme. In the first place, it afforded to those who engaged in it a most admirable form of recreation in the open air, where the men, with their wives and families, could enjoy for a time that pure air which was so beneficial. It was an infinitely superior plan of enjoying their spare time than loafing at the street corners or going in crowds to those gatherings where, without playing the game themselves, they actually paid others to do so. There were many ways of utilising what in ordinary language was called one's spare or off time, but to employ it in doing nothing was the very worst. What was probably the best was certainly not mere idleness, but a change of occupation agreeable to the particular taste of the individual, if possible in the open air, and which was even more enjoyable if it tended to awaken and to cultivate some other faculty or taste. Now, nothing could fulfil such conditions better than amateur gardening, which allowed exercise in a healthy environment, enabled those pursuing it to study the wonderful secrets of nature, and at the same time to develop and to increase the love for the beautiful and the artistic which the cultivation of flowers afforded. There was another feature of this association which he regarded as of great importance, and that was its utilitarian bearing on those who worked the gardens, for

not only did they themselves grow the flowers and vegetables, but they had the privilege of taking them home. Flowers improved immensely the appearance of their homes, but indirectly they tended to make them more healthy, because in order that flowers should be properly appreciated it was absolutely incumbent on the housewives to make the homes clean (and therefore in a sense healthy), so as not to render the contrast too great between the beauties of nature and the often poor attempts of man to make his house a fit place for nature's gifts; while from a health point of view fresh vegetables were an essential element of dietary, and far too little used by many of the community."

It is a great pity that not all our towns possess such entirely beneficial associations as the one now so successfully established in this northern suburb. Perhaps some of our town readers will act on our suggestion and take steps to organise cottage garden associations in their respective districts, so that by next spring we may find a much wider extension of this useful work throughout Ireland.

## Bee-Keeping.

By T. MAGUIRE, The Orchard, Enniskillen.

**S**TOCKS should be prepared for winter this month. The ideal conditions for wintering are—plenty of food, plenty of bees, young queens, and thoroughly weatherproof hives. As last month turned out so cold and wet, the food supply in many cases may be shorter than is supposed. Before packing up finally, see whether there are at least 20 lbs. of sealed stores in the combs—merely looking along the tops of the combs is often deceptive, they should be taken up and examined—and if short of that amount, candy to make up the requisite quantity should be made and placed over the frames. Candy in winter should only be regarded as an emergency food. To dissolve it the bees require water, and to obtain this necessitates their venturing out on days when they would be much safer inside the hive, thus causing an undesirable stir and excitement and leading to a certain loss of bees. Where the stock is fairly well off it is much better to simply put on winter passages now, or return a crate of partly filled sections; the candy can be given in the warmth of the spring much more safely, and it will then act as both food and stimulant for brood rearing. Candy should be made from cane sugar only, 6 lbs. to a pint of water being the quantity to use. A spoonful of cream of tartar should be added, and four to six drops of izar per pound for medicating purposes. The whole is kept constantly stirred on the fire till thick enough to set. When a drop is poured out on a plate and can be handled, when cool, without its sticking to the fingers, the saucepan may be removed from the fire, keeping the contents stirred after removal till beginning to set, when it may be poured out on a soup plate covered with paper. The cake should be placed over the frames, and will serve as winter passage as well as food.

Elder branches split and the pith hollowed out and cut in lengths to go across the tops of the frames make capital winter passages. Squares of tar felting, crushed and battered to render them porous, placed over the quilts are very useful. Over this, a chaff cushion or other warm and porous covering will make all snug and comfortable. The lift, where it is made to do so, should be reversed over the body box, removing the porch to the left. Then the hives should be securely tied down to prevent them being blown over by storms.

Beginners should never go rearranging combs for winter, as is sometimes recommended. The bees know best how and where to place their stores. Also, it is foolish to remove frames containing honey from the

brood nests. Empty frames may be taken out if not required for clustering, but full ones will keep better in the hive, and the bees will be in better heart in the spring with plenty of stores handy.

As soon as all danger of robbing is over the entrances should be left at least six inches wide.

Once packed, and the above conditions made sure, the bees should on no account be disturbed until next April.

## Correspondence.

ROYAL HORTICULTURAL SOCIETY'S AUGUST SHOW.

*Re CARNATION EXHIBIT.*

SIR,—In the report of the August show of the Royal Horticultural Society in your September issue you say with reference to carnations—"The only really good lot staged were disqualified on account of showing a seedling variety, with Malmaison blood, in class for border kinds." This statement is inaccurate. In the first place, the reason for disqualification was stated on card to be "for having Malmaison blooms in collection." In the second place, the variety in question was *not* a seedling with Malmaison blood, but was the well-known border carnation "Master F. Wall." It was argued by the "experts" present that the variety was wrongly so named, and in support of this contention tiny, semi-single blooms were shown to me, which were stated to be the *true* "Master F. Wall." I have submitted blooms, buds and foliage from the same plants, and of identical type, for the opinion of the well-known growers, Messrs. Blackmore and Langdon, *who are the raisers of the variety Master F. Wall.* Their opinion is as follows:—"Re Carnation 'Master F. Wall.' The blooms and grass sent by you are perfectly true to name. It is a true hardy border carnation." I do not wish to make any further comment on the incident.

THE EXHIBITOR.

ORDERING FRUIT TREES.

SIR,—If planters or county committees before ordering fruit trees would visit the nurseries and select the trees required, I think it would be to their benefit, as then they could select the type of tree they want. I know many nurserymen will try and send the kind of trees ordered, but judging from my experience here you will always get many indifferently grown trees in large orders, and often the varieties will be substituted, thus causing much inconvenience. I know the trees could be returned, but this is again not always possible, so again I repeat, pay a personal visit to the nursery, and select for yourself; while to county committees of agriculture I would advise them to send their horticultural instructor to select the trees in the nurseries of firms where their orders are placed, as otherwise often trees grown in very rich soil in sheltered nurseries are sent to be planted probably in poor soil and on exposed ground, and the result failure, or at least the trees do poorly for some time even with the best of treatment. Another result from ordering trees without seeing them is that very often the instructor is blamed for planting unsuitable varieties, and his work suffers. I know that county committees are anxious that the trees should be inspected by their instructor, but the Department will not sanction the small expense to visit the nurseries.

I like to see a nice free growth on fruit trees for planting, and this can only be had on moderately rich ground, but in many nurseries where manure can be had cheaply it is too freely used, and vigorous growth is the result, but the trees when sold often do poorly, as mentioned above.

W. T.

Naas.

## BEE-KEEPING MADE PROFITABLE.

Every Bee-Keeper who desires success should read

# THE IRISH BEE JOURNAL

(Established 1907.)

Official Organ of the Irish and Affiliated, Croydon, and Perthshire B. K. Associations.

THE LARGEST PENNY BEE PAPER IN THE WORLD.

Received with enthusiastic approval and congratulations at Home and Abroad

"One of the brightest in the world."—*Gleanings (American).*

"One of the liveliest and best Apian Journals in all Europe."—*American Bee-Keeper.*

Monthly 1d.; 1s. 6d. per Annum, Post Free.

**THE IRISH BEE GUIDE.** By the Editor, "Irish Bee Journal." The best book on the subject yet published. 220 pages. 150 illustrations. Paper cover, 2s.; postage, 3d. Linen cover, 3s.; postage, 4d.

From the office, IRISH BEE JOURNAL, Lough Rynn, Dromod, and of all newsagents.

## "NICOTICIDE" Fumigant.

Half-gallon Tin, containing sufficient for 160,000 cubic feet	50/-
No. 1 size Tin—1 pint	15/-
No. 2 size Tin—4 pint	7/6
No. 3 size Bottle—6 oz.	4/6
No. 4 size Bottle—4 oz.	3/-
No. 6 size Bottle—1 oz (sample)	10d.

Carr. paid.

### FUMIGATORS,

1/- each, for 5,000 cubic feet.

### NICOTICIDE PLANT WASH For Outdoors.

½ Pint, 1/2; Pint, 2/-;  
Quart, 3/6; ½ Gallon, 5/-;  
Gallon, 10/-



Gow's Slug and Wire-worm Destroyer, Lawn Sand, Daisy Eradicator, Tobacco Powder and Quassa Extract.

Sold in 6d., 1/-, also 2/6

Tine and larger sizes.

INSIST ON YOUR SENDSMAN SUPPLYING THEM.

Carr. forward

**GOW'S WINTER ALKALI TREE WASH** for destroying Woolly Aphis, Scales, Lichen Moss and Apple Suckers, &c. Half-gallon, 2/6; Gallon, 5/- carriage paid. One gallon will make 20 gallons solution.

**HUNTER & COW, 46 Thomas Street, LIVERPOOL.**

## Encourage Home Industry!

We can supply you with Greenhouses, Poultryhouses, Dog Kennels and all Appliances 25 per cent. less than the foreigner.

### McLOUGHLIN & CO.,

Horticultural, Canine and Poultry Appliance Manufacturers,

15 Berkeley Street, DUBLIN.

## EVERY WEED DESTROYED

GARDEN ON CARRIAGE  
PATHS. BY DRIVES.&c

### "CLIMAX" WEED KILLER.

ONE APPLICATION IS SUFFICIENT FOR 12 MONTHS. IT KILLS THE WEEDS ROOT AND BRANCH.

No. 1 tin, to dress 100 sq. yards, 2s. 3d. post free. No. 2 tin, to dress 400 sq. yards, 7s.

Write for our Catalogue of Garden Helps.

BOUNDARY CHEMICAL CO. LTD CRANMER ST LIVERPOOL

## MUSIC PRINTING A Speciality

Estimates  
Free



Superior  
Work

## BOOK-BINDING

"IRISH GARDENING" can be bound at this Office in handsome Cloth Case, gilt. Price, including postage, 3s. 6d.

Office—53 UPPER SACKVILLE STREET, DUBLIN

When Planting

**Fruit or Forest Trees  
Ornamental Shrubs  
Thorn Quicks  
. Hedging Plants .  
&c., &c.**

Write . .

**W<sup>M</sup>. POWER & Co.**

---

**Nurserymen and  
Seedmerchants**

---

**WATERFORD**

OVER HALF-A-MILLION FOREST TREES were exported from  
Power's Nurseries last season to England, Scotland, and Wales

---

**BULB, NURSERY, AND GARDEN SEED CATALOGUES POST FREE**

NOV., 1908.

TWOPENOE.

# Irish Gardening

## Contents

	PAGE		PAGE
Hardy Shrubs . . . . .	165	A Note on Fertilisers . . . . .	172
Roses . . . . .	166	Potato Scab . . . . .	174
Winter Berries . . . . .	167	Royal Horticultural Society of Ireland	175
Climbing Plants . . . . .	168	Fuchsia Riccartoni in the West . . . . .	175
Current Topics . . . . .	169	The Month's Work . . . . .	176
The Herbaceous Border . . . . .	170	Record of Rainfall . . . . .	177
Some Autumn Flowering Plants . . . . .	170	The Reader . . . . .	178
Bocconia Cordata . . . . .	171	School Gardening . . . . .	179
Godetia . . . . .	171	Bee-keeping . . . . .	179
A Rare Mullein . . . . .	171	Answers to Correspondents . . . . .	180
Florence Court or Irish Yew . . . . .	172	Correspondence . . . . .	180

## EDMONDSON BROS.

AGENTS FOR  
RIVERS'  
FRUIT TREES

**Seed & Bulb  
Merchants .**

GARDEN TOOLS,  
MATS, STAKES,  
FLOWER-POTS, &c.

**10 Dame Street, DUBLIN**

## MAGUIRE & GATCHELL LIMITED

**200 BOILERS  
READY FOR  
FIXING**

**SPECIALISTS for ...  
HEATING  
HORTICULTURAL BUILDINGS**

**Wholesale  
Agents for  
Pennsylvania  
Lawn Mowers**

**7, 10, 14 & 15 Dawson Street, DUBLIN**



## WINDOW GLASS.

Polished Plate for Shop Windows.  
Ornamental Glass of all Descriptions.  
Horticultural Glass at Lowest Rates.

## DEATH TO THE WEEDS.

### HOYTE'S WEED KILLER.

*Strongly Recommended for the Destruction of Weeds, &c.*

Price, 2s. per gallon; 5 gallons, 1s. 6d. per gallon;  
10 gallons, 1s. 3d. per gallon; Original 40-gallon casks,  
1s. per gallon.

**HOYTE & SON,** The City of Dublin Drug Hall,  
17 LOWER SACKVILLE STREET, DUBLIN.

## BECKER BROS.

PRICES—  
2/5, 2/2, 2/-, 1/10, 1/8, 1/6, 1/4, 1/2.  
**TEAS.**  
PRICES—  
2/5, 2/2, 2/-, 1/10, 1/8, 1/6, 1/4, 1/2.

8 Sth. Gt. George's St.  
AND 17 Nth. Earl St. **Dublin.**

All Original Illustration Blocks in  
"Irish Gardening" are executed by  
... THE ...

## Irish Photo-Engraving Co.



Samples and Prices  
for every kind of  
Illustrative Work  
upon application.

Oriel House, Westland Row, DUBLIN.

## FOR Flower Pots AND Horticultural Pottery

WRITE

**G. J. OWENS,**  
Brick and Pottery Works,  
**ENNISCORTHY.**

Agents for Dublin and District:—Messrs. E. BROWETT & SONS,  
7 Upper George's Street, KINCSTOWN.

"Has stood the test of a quarter of a  
century."

## THOMSON'S Vine, Plant, and Vegetable MANURE.

Only Medal,  
Edinburgh, 1886.



Gold Medal,  
Edinburgh, 1891.

The result of long Practical Experience. Unrivalled  
for all Purposes. This valuable Manure is  
yearly growing in public favour.

ALSO  
**THOMSON'S SPECIAL  
CHRYSANTHEMUM MANURE.**

Perfect Plant Foods.  
SOLD BY ALL SEEDSMEN.

Price Lists and Testimonials on application to  
SOLE MAKERS—

**WM. THOMSON & SONS, LTD.,**  
Tweed Vineyard,  
CLOVENFORDS, GALASHIELS, N.B.

## BULBS! For PLANTING NOW. . . For SPRING FLOWERING.

Carriage Free by Post, Tram, or Rail.

TAIT'S "MONSTER" Collection of 1,300 Selected  
Bulbs for outdoor cultivation, 21/-; half, 10/6.

**Hyacinths**—Choice named sorts for Pots and Glasses.

**Hyacinths**—Second size, named in distinct colours for  
Vases, Massing, Bedding, &c., Bright Red, Rose,  
White, Blue, &c.

**Hyacinths**—Mixed, for Beds or Borders of First Class  
quality, all colours.

**Tulips**—Choicest Single Mixed, Choicest Double  
Mixed.

**Crocus**—Mixed Blue, Mixed White, Mixed Striped,  
Mixed, all colours. Large Yellow.

**Narcissus and Daffodils**—Mixed, consisting of all the  
leading and best cutting varieties.

**Anemone**—"St. Brigid," the most beautiful of all the  
Anemones.

**Freesia, Iris, Ixias, Snowdrops, Ranunculus,**  
**Anemones, Gladioli, Jonquills, Lilies,** and  
every known bulb in cultivation at lowest rates.

WRITE FOR BULB CATALOGUE POST FREE.

## W. TAIT & CO.

Bulb and Seed Merchants,  
119 & 120 CAPEL STREET, DUBLIN.



# IRISH GARDENING

VOLUME III.  
No. 33

A MONTHLY JOURNAL DEVOTED TO THE  
ADVANCEMENT OF HORTICULTURE AND  
ARBORICULTURE IN IRELAND

NOVEMBER  
1908

## Hardy Shrubs.

By J. W. BESANT, Royal Botanic Gardens, Glasnevin.

ONE of the most encouraging signs in modern gardening is the increased attention which is being accorded to the subjects under notice. Hardiness in this instance must be taken as an elastic term, for a certain shrub may be perfectly hardy in one locality and not at all so in another. The circumstances which govern hardiness in plants are numerous, and would require considerable space to discuss. There are, however, so many really good shrubs that are hardy nearly everywhere and so many species and varieties available that even in the coldest part of the three kingdoms an interesting collection may be grown. A good collection of shrubs will include kinds which will flower or be otherwise attractive over the greater part of the year.

Where walls are available a very early display may be had of such fine things as the Winter Sweet (*Chimonanthus fragrans* and *C. f. grandiflora*), *Lonicera fragrantissima*, and *L. Standishii*. These plants in themselves are quite hardy, but flowering so early in January and February the flowers are apt to be cut by the frost if growing in the open. It may also be added that when growing against a wall the shoots are better ripened, and consequently yield a finer crop of flowers. Very early also, often in February, *Spiraea thunbergi* will open its tiny, white blossoms, and will continue to make a display for some weeks. Soon after the flowering currant (*Ribes sanguinea*) will afford a good display. Many good varieties of this plant are now to be had, including *R. splendens*, *R. albidum*, &c. Few shrubs are more effective in the early months of the year than *Forsythia suspensa*. Seen as a group on the lawn or in the shrubbery, with the long, willow-like shoots wreathed in charming yellow blossoms, this shrub is admired by all. *Forsythia intermedia* and *F. viridissima* are also good, but lack the grace of the first named species. The vast army of leguminous plants play a worthy part in the season's display, and from early spring till winter

one or the other of the members of this family will be found in flower. *Cytisus albus*, pure white, and *Cytisus praecox*, pale yellow, are annually smothered in bloom, as also is *Cytisus purgans*, yellow. Variety in size and habit is also a notable feature; from plants of five to six feet high in the first-named kinds, to those of low-spreading habit in *C. Kewensis*, *C. Ardoini* and *C. Beani*, all with flowers of shades of yellow. Other good kinds, varying in height from four or five to three feet or less, are *C. hirsutus* and *C. h. hirsutissimus*, *C. leucanthus*, *C. biflorus*, *C. capitatus*, *C. nigricans*, and others, all of great merit, and with the flowers varying in the different species from pale to deep yellow. It may be here remarked that the heights given are approximate, being largely influenced by circumstances of soil, situation and cultivation. Mention should also be made of *Cytisus scoparius* var. *Audreanus* and the many lovely forms of this variety which have emanated from Daisy Hill Nurseries, Newry.

Genistas, too, are extremely beautiful, and furnish planters with considerable variety. Tree-like forms running up to twelve feet high are *Genista æthensis* and *G. virgatus*, while *G. cinerea* will reach six feet; others from two to three feet are *G. hispanica*, *G. horrida*, *G. radiata*, *G. pilosa*, down to quite dwarf or prostrate forms like *G. sagittalis* and *G. humifusa*. Other good plants in the leguminosæ are the Caraganas, some of which, like *C. arborescens*, will reach a height of fifteen feet or more, while dwarfer forms are *C. frutescens*, nine feet; *C. microphylla*, still less, down to *C. pygmaea*; even the curious tortuous growths of *C. jubata* are not without interest to some. All have yellow flowers.

The bladder sennas (*Colutea*) are also useful, growing and flowering freely in very indifferent soil. Not the least interesting feature of the *coluteas* is the curious bladder-like fruits which succeed the flowers and last into winter.

The barberries (*Berberis*) furnish many charm-

ing subjects for massing in beds or for groups in the shrubbery. This genus is a large one, and is still being added to. *B. aquifolium* (Mahonia) is evergreen, and bears spiny leaves and yellow flowers; there are several good varieties of this species. *Berberis stenophylla* has small leaves on long, slender branches which are clothed in spring with sweet-scented, golden-yellow flowers. *B. Darwinii* has larger leaves, is stiffer in habit, and grows taller. The flowers of *B. Darwinii* are very beautiful, being deep orange coloured. Other fine sorts are *B. umbilicata*, with handsome foliage and the young branches bright red; *B. empetrifolia*, dwarf, and suitable for edging, and *B. Wilsonæ*, a fine dwarf species from China suitable for the rock garden or for the front of a shrubbery.

Of spiræas one has already been mentioned, viz., *S. thunbergi*; other good sorts flowering in spring, through summer and autumn, are *Spiræa arguta*, *S. prunifolia* fl. pl. *S. discolor*, *S. trilobata*, *S. lindleyana*, *S. Aitchisoni*, *S. Douglasi*, and *S. japonica*, &c.

Of honeysuckles (*Lonicera*) there are numerous bush forms of merit, such as *L. Alberti*, *L. depressa*, *L. syringantha*, *L. tatarica*, and many others of climbing or rambling habit.

Of diervillas (*Heigeia*), deutzias and philadelphuses much might be written. Of the first named there are white, pink, deep red and yellow flowered forms. Deutzias give us pink and white-flowered sorts, while the philadelphuses are white or, in some, very pale straw-coloured.

The escallonias yield many fine displays, and although not hardy everywhere there are some localities near the sea where they prove a feature. *E. exoniensis*, *E. illinila*, and *E.*

*philippiana* have white flowers, while *E. langleyensis* has pink or pale red and *E. punctata* and *E. rubra* and *E. macrantha* have red flowers.

Many other genera contribute to the beauty of our gardens, but within the limits of these notes it is impossible to mention even a tithe of

the species and varieties available. The rose family alone contains species enough to form a large garden, while another might be formed of plants of the heath family.

Apart from flowering shrubs, as the term is usually understood, there is a vast array of ornamental foliage shrubs, others with ornamental fruits, and still others with brilliant coloured stems. These and many others may be more fittingly and more fully dealt with in future issues if space be available.

## Roses.

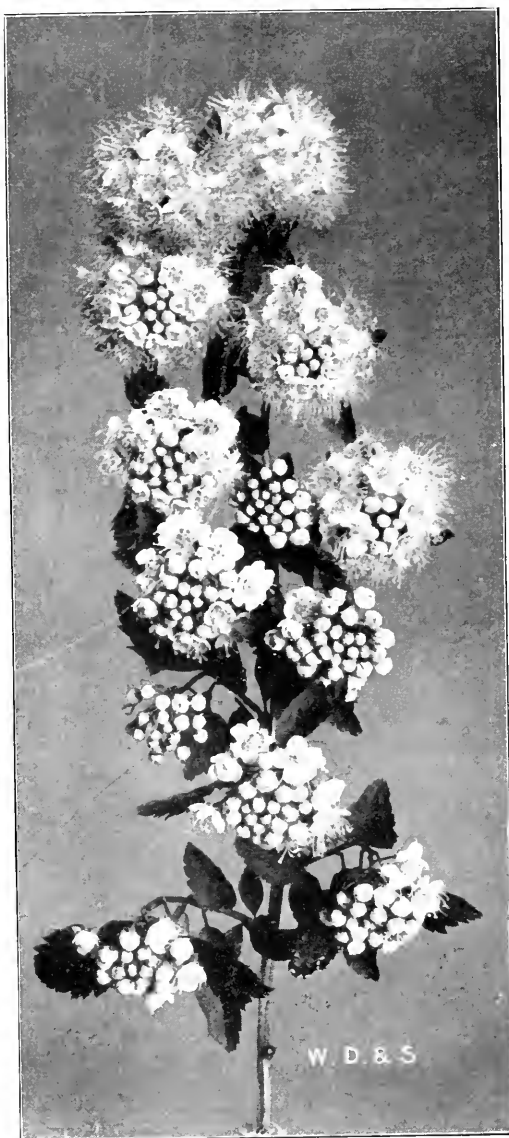
By O'DONEL BROWNE, M.D.

THE rose season that is fast passing away has, on the whole, been a favourable one, and it is well that it was so good, because one can more confidentially recommend some of the newer roses which were tried. The heat of July sorely tried the lasting qualities of some, but there were others which were not fleeting in their habits. Perhaps if I name some of the newer varieties I have tried this year and give a few remarks on each it will let readers see what results I have obtained.

*Mme. Melanie Soupert*.—A good grower, sturdy and strong. The flower is large; petals shell-shaped and very massive; colour a warm pink in the bud-stage, which fades with age. A grand rose.

*Mme. Constant Soupert*.—This is a Tea which is soon expected to rival Comtesse de Nadaillac. Unfortunately the vendor of the plants sent me "Melanie" instead of "Constant," but he sent one true plant or the latter. Growth vigorous, thorny, dark red in colour. Flowers a glorious yellow, bud long and pointed; a good laster, and a fine exhibition rose.

*Yvonne Vacherot*.—Very long tapered bud of light pink in early stage, fading to white with age. Growth fairly vigorous, not nearly as strong as the two



SPIRÆA CANESCENS.

varieties mentioned above. A really good laster. I had a bloom tied up for nearly a week in July, and showed it well in London. It was well shown by many exhibitors in London.

*Mme. Maurice de Luze*.—A good strong grower; secondary shoots extra strong; foliage very good; blooms are semi-globular in shape. In dull weather the colour is a dark canary yellow. A fair lasting rose, with a good perfume; good for exhibition as well as bedding.

*Avoca*.—A strong grower; growths on maidens nearly five feet long. Said to be a crimson Killarney. Blooms only moderately full; best in the autumn. Perfume first class. Must be cut young for show purposes. The raisers show wonderful blooms of it. Gold medal.

*H. Armytage Moore*.—A coloured plate of this flower appeared in a few numbers back of this paper. Growth very good, flowers are produced in enormous quantities; in fact, the tree is always in flower. The best bedding rose I have met this year, and now and then good enough for show.

*Mrs. Stewart Clark*.—Extra vigorous in growth; flowers best in the autumn. Petals very stiff; inside colour a dark, glowing, rosy carmine, outside much paler. Perfume is glorious. A good show rose. Gold medal.

*Queen of Spain*.—Growth only moderate, flowers are very full. Colour and shape something after the style of *Mme. Jules Graveraux*. Liable to come coarse and split, but an excellent show rose when caught right. Gold medal.

*W. E. Lippiatt*.—Growth and habit after the style of *Charles Lefebvre*. Blooms are very large, full-globular in shape, with a good centre. Colour a dark maroon shaded violet. Perfume grand. A most valuable addition to our newer *H. Teas*. A grand show rose.

*Colonel Williamson*.—A really strong good grower. Blooms are large, shaped like *Catherine Mermet*, and silvery pink in colour. Foliage good. First rate.

*George C. Wand*.—The colour in this rose is unique and unapproached by any other flower. Blooms are a vermilion colour with a mixture of orange. The young bloom looks as if it were varnished. It has a great future. Gold medal. Splendid.

*Harry Kirk*.—A *H. T.* according to the raisers, but made a *Tea* in classification by the *N. R. S.* It is being sent out in catalogues as a *H. T.*, but it was given the gold medal as a *Tea*. Growth very strong, dark red in colour, very thorny. As a cutback it grows into a large bush. Foliage dark and soft textured. Flowers in bud stage are lovely. A dark yellow in colour, which fades in strong sun. A most valuable addition to *Tea* class. First class for bedding, and good enough for exhibition.

*Mrs. Myles Kennedy*.—Growth with me excellent. Blooms very full, and impatient of wet. Colour—cream with suffusion of pink. Said to be a glorified *Souvenir d'Elise Vardon*. An exhibitor's rose, but a grand *Tea*. Gold medal. Shown well in London.

*Dr. O'Donel Browne*.—A grand strong grower, very nearly a *H. P.* in manners and customs, but a true *H. T.* Most of the gardening papers when reporting on it at the autumn show of *N. R. S.* made it a *H. P.*, but its parents (I know them) are a *H. P.* and a pure *Tea*. The flowers I have seen of it are large, semi-globular, very full; best in the autumn. Colour—rosy carmine, but the perfume, this is glorious; I know of no rose that can equal it. I am sorry I cannot show a photo of this flower, as I cut my pot plants away for budding purposes, and I had hoped the raisers would send me a representative flower to photograph, but they have not done so. A truly grand flower, which everyone ought to, and will, I am sure, grow when they know its good qualities and glorious scent. The latest gold medal winner.

## Winter Berries.

WINTER berried trees and shrubs are particularly valuable as decorative subjects in gardens and grounds surrounding the home because of their attractiveness during the duller months of the year. It is true that, owing to the combined action of frost and birds, the fruits in most cases will more or less rapidly pass away, but still they will well repay the expense and trouble of planting. Many of them, like the Thorns, give a glorious display of flowers earlier in the year, so that the later show of fruit is, as it were, "an extra"—an additional gift of colour to the wise and discriminating planter.

*Celastrus orbiculatus* (= *C. articulatus*) is a tall, hardy, woody climber, a native of China and Japan. It has small, greenish-white flowers that pass into globular orange-yellow fruit with crimson seeds. The fruits when ripe open and show its brightly-coloured seeds, as is the habit of spindle-trees. The fruits are hidden a good deal by the foliage, but after the fall of the leaf the plant presents a very handsome appearance.

The cotoneasters are very effective winter shrubs, with red or scarlet berries. *C. rotundifolia*, a Himalayan evergreen species four to five feet high, has bright, scarlet berries that remain in fruit somewhat longer than the other species. *C. frigida*, a native of Nepal, is almost an evergreen. Its leaves are relatively large and the berries very conspicuous. *C. simonsii* grows to a height of eight to twelve feet. Its leaves are deciduous, and the fruit abundant and attractive. *C. microphylla* (three to four feet) is perhaps the best known of the species. It is evergreen, and carries rather small, crimson berries. A dwarf form of the species is much used for rockeries.

The Siberian crab (*Pyrus baccata*) might be more extensively grown, as its handsome yellow fruit, tinged with red, are most attractive. Another *Pyrus*, the Rowan or Mountain Ash (*P. aucuparia*) is well worth growing. Its bright clusters of berries, however, being great favourites with birds, disappear very early in the winter.

The Thorns (*Crategis*) give us a fine number of attractive fruiting subjects for the declining months of the year. The scarlet haw (*C. coccinea*) and the Cockspur thorn (*C. crus-galli*), both natives of North America, the fire-thorn (*C. pyracantha*), a popular subject for walls, and *C. carrierei*, a garden hybrid with handsome berries, may be particularly mentioned as being easily established and useful. The fruit of thorns seldom last long in a hard winter, being a favourite food of birds.

*Pernettyas* are good, their fruits, varying in colour from dark red to white, are able to withstand frost well. Quite young plants produce flowers and fruits especially if the roots are surrounded with peat.

The strawberry trees (*Arbutus*) fruit well in warm situations. *A. unedo* grows wild in the woods at Killarney; it is an evergreen, and forms large berries (two-thirds of an inch in diameter) of an orange-scarlet colour which are edible when fully ripe.

Hollies (*Ilex*) form a large group of abundantly berried shrubs and trees. *I. camelliae-folia* and *I. Hodgsoni* have yellow berries that remain on the branches for a long time.

One of the very best plants either for poor soils in exposed situations or for planting close to the sea is the sea buckthorn (*Hippophae rhamnoides*). Planters of this shrub should remember that the shrubs are two-sexual, and that to secure berries both male and female individuals should be planted. The berries, which are orange yellow in colour, seem to be distasteful to birds.



NATURE helps every man to become that which he desires to become. If he put forth no effort Nature assumes his wish is to be a nobody, and grants his prayer.—Hubbard.

## Climbing Plants.

THE decoration of bare walls and ugly corners is a problem that is always with us. It is at all times a matter of interest when visiting the gardens of our friends to note how this question has been solved, and with what results. To clothe the unlovely things with beauty and to convert an eyesore into an object of artistic delight must always give intense pleasure to the maker of a garden. In the matter of planting and training it is always best to allow the climber to follow as closely as possible its own natural mode of growth and to dispense with such artificial aids as nailing and tying, except in such cases as are absolutely necessary. In establishing a climber care should be taken to acquaint oneself of the natural requirements of the plant selected, and to provide it with the means by which it can do its best to fulfil the particular object in view.

A point of much interest in the growth of climbing plants is the method by which they climb. Plants like hop, morning-glory (*Ipomoea*), convolvulus, and Alleghany vine (*Adlumia cirrhosa*) are twiners, and therefore require rod-like supports to train their slender stems round. Such climbers are useful for covering trees, poles, and the like. It is interesting to note that the tips of the twining shoots of any particular twiner always revolve in one particular direction—for example, those of the hop twine in the direction of motion of the hands of a watch, while the convolvulus works in the opposite direction. The Alleghany vine is a capital grower. It is a biennial, with beautiful maidenhair-like leaves and purple, drooping flowers, which seed freely. For covering low shrubs in a warm corner nothing could be better.

In clematis and in the Canary creeper (*Tropaeolum*) it is the base of the leaf-stalk that twines

round and grips the support. Both of these are extremely useful. The common wild clematis is very handsome when carrying its masses of long-tailed, hoary-looking fruit, while the utility of the Canary creeper is well known. Such climbers as these may be well used to brighten up clumps of evergreen with their contrast of colour. It is certainly much more artistic as well as more natural to grow climbers upon living shrubs and trees rather than to train them along poles or other specially erected supports. It would be a simple matter to keep the tree

within bounds so as to adapt it to the particular climbing plant we elect to use.

The Virginian creeper clings to the surface of walls and bark of trees by means of suckers at the end of tendrillike processes. If you happen to have a mixed border backed by a fence a striking autumn effect can be obtained by using this creeper. It will give a gorgeous background of crimson, scarlet and gold. The wild clematis, too, may be so used if a low-toned background is more suited to your colour scheme. Very useful, too, are the scrambling climbers or those which, like the blackberry and rambling roses, cling by means of hooked prickles.

A large number of climbers support their

slender stems by means of tendrils. Some, like the Everlasting pea, have leaf-tendrils, while others have branch tendrils—as the gourds and wild Balsam apple (*Echinocystis lobata*). The last named plant is a rapidly-growing annual that may attain a height of nearly twenty feet during the season. Its little greenish-white flowers are succeeded by clusters of prickly gooseberry-like fruit. Lastly, for present notice is the climbing device of the ivy which holds on to its support by means of aerial roots. There are few climbers so universally useful as the ivy. It may be had in great variety as to form of leaves and colour, and

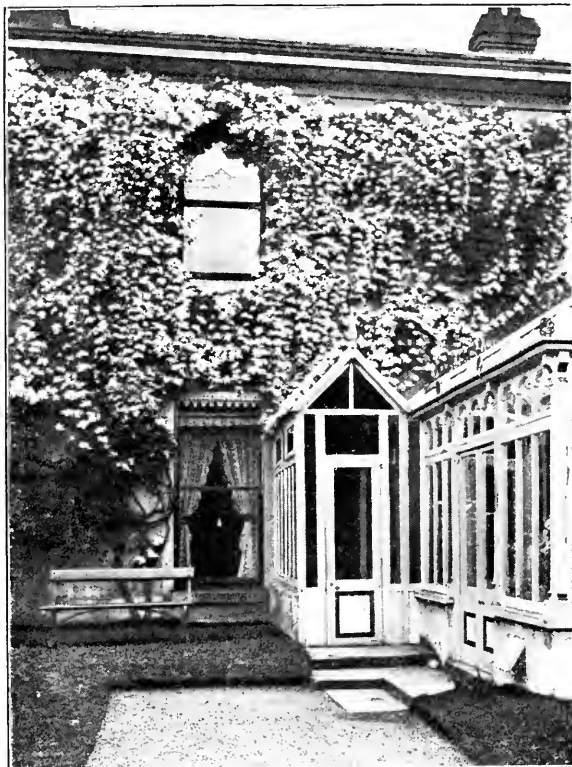


Photo by]

[W. J. Mitchison.

CLEMATIS MONTANA GRANDIFLORA

At Dunshane, the residence of E. F. MOORE, Esq.

being evergreen it is of special value for winter effect.

It is not the object of this note to give a complete list of climbers, but rather to draw our readers' attention to this group of plants in connection with the decoration of the home and its surroundings. But we may add the names of the following to those already given. First and foremost reference must be made to the rose, of which we have a wide range of choice, for covering walls and trellises and for clambering over low bushes. Rambling roses such as Aimee Vibert, *Félicité-Perpetue*, Dundee Rambler, &c., are most suitable for covering unsightly trees. Then everyone must be familiar with the magnificent colour effect of a well-grown *Wistaria* on a wall, with its wealth of pendent racemes of delicate, mauve-blue flowers. *Wistaria sinensis* is particularly effective when in flower if allowed to scramble among the branches of the laburnum, the drooping, blue-tinted racemes of the one harmonising beautifully with the also drooping but golden-coloured racemes of the other. The sweet-scented, white-flowered *Vitis vulpina* is also a splendid and highly-decorative tree climber. Honeysuckle is deservedly a great favourite, and so is jasmine—the latter mainly because it gives such a brave show of bright flowers in the winter. *Polygonum baldschuanicum* is a climbing plant that ought not to be forgotten. It is a rampant grower, and so floriferous that its foamy panicles of white flowers almost smother its abundant foliage. It cannot be beaten as a decorative covering for a low fence. Lastly, it may be noted that in planting climbers intended to cover trees the best plan perhaps is to place them away from the trunk, under the extremity of the branches, fixing them at first to a stout stake and leading them to the boughs (which should also be attached to the stake to prevent swaying). After they have once established themselves there will be no more care required other than occasional pruning



**WHY STORED APPLES GET SWEETER.**—Apples, and especially those that ripen late, usually contain a certain amount of starch when harvested. This starch gradually gets changed to sugar through the action of a ferment developed within the living cells of the fruit, the rapidity of the change depending upon the variety and the mode of storing. The acid also decreases (to a third per cent. in tested cases). These facts, together with the concentration of the soluble matter due to loss of moisture by evaporation, accounts for the increase in sweetness of stored apples. With respect to certain varieties used in the manufacture of cider, it has been found that in the majority of cases the ripe fruit contained no starch, and that the specific gravity and the amount of acid, sugar, and total solids decreased during storage. In the few cases in which starch was present this substance, as well as the acid, decreased, while there was a slight increase in the sugar content and in the specific gravity.

## Current Topics.

By PETER BROCK, Orchard Terrace, Enniskillen.

**T**HE long spell of dark, wet weather, from 24th August till the end of September, had a retarding effect on the swelling of late apples. The opening days of October, however, were all that could be desired for finishing sorts like Bramley which, although good generally, have not attained the size that in August appeared probable they would reach at pulling time. It is everywhere noticeable that very few fruits of Bramley drop during such gales as experienced this autumn. For this reason it makes a capital shelter for more delicate varieties. It might also with advantage be utilised in many places as a shelter for houses. Planted in block at about twenty feet apart each way, or if in a single line at fifteen feet apart, and given good cultivation in the way of top-dressing and keeping them clean for the first ten years, they grow up quickly, and are not only more profitable and ornamental, but they afford a more effective shelter than the mop-headed and bare-stemmed ash so often met with.

Now that the crops have been secured, many owners of orchards will be reckoning their profits for the season, and reflecting on all they did and did not, and might have done, in the way of spraying and cultivating and laying plans for the future.

The quantity and quality of fruit and regularity of croppings depend so much on attending to the requirements at the roots that for the past three years I have noted the effects of rational treatment on a tree of Bramley's Seedling near Enniskillen. This tree is on the crab stock, and was planted eighteen years ago on heavy and rather retentive soil—if it was in grass there would be more rushes than grass to-day. The tree has been allowed to grow without restriction further than shortening an occasional branch to preserve the balance and keeping the branches thinned to admit light and air to all parts of the tree. It has not missed yielding a good crop for the past twelve years, and the fruit is so even in size they require no grading, being practically all first grade. Its dimensions are—Height of stem, 3 feet 10 inches; girth of ditto, 30½ inches; height from ground to top of highest branches, 17 feet 6 inches; diameter of branches, the points of which nearly touch the ground when loaded with fruit, 24 feet. To see this tree at dusk from a distance, when loaded with fruit, it presents the appearance of a big umbrella stuck in the ground. The crops for the past three seasons, exclusive of unmarketable fruits, have weighed as follows:—In 1906, 3 cwt. 6 st.; 1907, 4 cwt. 1 st.; 1908, 5 cwt. 7 st. Total, 13 cwt. 6 st. The quality of the fruit sells it locally at remunerative prices. However, if sent to distant markets the value would be approximately 15/- per cwt. net—say, £10 6s. 2d. The tree is annually winter-sprayed with lime and paraffin, and gets about as much manure as would be required to grow good crops of cabbage. The foliage and fruit-buds look as promising this autumn for a good crop next year as I have ever seen them. Needless to say, this tree is the pride of Phil Johnston, who is unsparing in his attentions with the hoe on this and all other trees under his care.

Such forcible demonstrations or arguments are of little value to some who consider themselves interested in fruit growing, as I have under observation hundreds of trees the owners of which place more value on the hay grown round them than the fruit they produce. Trees grown under such adverse conditions are stunted from the start, and take a lifetime to attain a fair size; besides, they seldom yield full crops, and may be compared to the ill-fed animal, always more predisposed to attacks of insects and disease than the properly fed beast.



## The Herbaceous Border.

**B**EFORE this article will appear to the readers of IRISH GARDENING dull November will be with us. There will be very little plants in bloom in the herbaceous border; perhaps a few of the latest varieties of Michaelmas daisies may still have a few blooms left, but they will have a poor colour, owing to the shortness of the day and dull weather.

The border should now get a thorough cleaning, all old flower stems and foliage cleared away, and it should be made as neat as possible for the winter. If the border is not mulched this should be done as soon as possible, forking over all spaces to make it look nice and neat.

It is essential to divide phlox, Michaelmas daisies, and many other herbaceous plants every few years, as the individual blooms are increased in size by doing so. Some growers prefer to do this work in November; others, with labour now available and in anticipation of pressure during the spring, get this particular work done during the present month. If possible, however, it should be left over until the young shoots of the plants appear over ground in the spring, when you can select nice, healthy pieces around the outside of the old plants.

The present would be a good time of the year to make a new herbaceous border. Select a nice situation facing south or south-west; if possible the site should be provided with ornamental shrubs as a background. If the site requires draining this work should be done first; then thoroughly manure and trench the soil. If it is not intended to plant until spring this work should be done roughly, and left in that state until then. In the meantime the action of the air will improve the texture of the soil, reducing it to a fine tilt, and thus render it more fit for planting operations in the spring.

FRANK HUDSON.



NEW ZEALAND FLAX (*Phormium tenax*), often cultivated in these islands as an ornamental garden plant, is grown to a large extent as a field crop in its native country. In the year 1866-67, 29,040 tons of the fibre obtained from this plant were exported to Europe and America for the manufacture of ropes and twine.

## Some Autumn Flowering Plants.

By W. DAVIDSON, Carton Gardens.

**T**HE spell of bright weather experienced during the early part of last month did much to enhance the appearance of our late flowering plants. The herbaceous borders presented a very pleasing aspect, and some notes on our indispensable autumn gems may not be amiss at this time.

The helianthus is well known as one of our best late flowering perennials, and mention need only be made of one variety—"Miss Mellish." This variety has large duplex flowers of a bright orange-yellow colour, and usually grows to a height of about six feet. For this acquisition to our borders we are indebted to Mr. Mallender, gardener to Miss Mellish, of Hodsock Priory. He it was who discovered the plant growing in a wayside garden, and, recognising its value, got possession of it, and had it named in honour of his employer. This plant figures largely in at least one of those picturesque cottage gardens by the Strawberry Beds.

The heleniums are closely allied to the helianthus, and are equally well known. The best autumn variety is undoubtedly *H. autumnale grandiflorum*, a very effective plant with clear yellow flowers. *H. autumnale superbum*, is also good, and is not quite so tall, being about five feet high. There is a recent addition *H. autumnale cupreum* but it flowers somewhat earlier, and might be termed a summer-flowering variety. This plant grows two feet high, and the flowers are orange, shot with crimson bronze.

The perennial asters or Michaelmas daisies now occupy a very prominent place in all hardy flower borders, and this is not to be wondered at when one is privileged to see a good collection of those handsome plants grouped together in a sunny position, and all clothed with their clouds of dainty and brightly coloured flowers. *Aster lindleyanus*, though one of the earliest to come into flower, is worthy of mention, as it brightens up the herbaceous borders for a considerable time. At Carton it is grown at intervals, in groups of about eight plants, near the edge of the borders, and allowed to grow to the front without staking; and it seems specially adapted for this mode of cultivation. The plants are literally smothered in a profusion of small china-blue flowers.

In the novae-angliae section, Rycroft Pink and Rycroft Purple are two strikingly handsome varieties. They attain a height of four feet.

The novi-belgii section contains many splendid late flowering sorts, of which D. B. Crane (3 feet), with flowers of mauve and rose; F. W. Burbidge (4 feet), with heliotrope-coloured flowers; May Crum (5 feet), with pale lavender and white flowers; Perry's Pink (3½ feet), a pretty shade of rose pink; and William Marshall (4 feet), with large flowers of an exquisite mauve shade are amongst the best.

Of course no autumn display is complete without a good show of kniphofias, and when planted in bold groups in the borders they have a most pleasing effect during the autumn months.

Nearly all the varieties of the "Red-hot Poker" are autumn flowering subjects. "Chloris" is a valuable late bloomer.

"Triumph" has been recognised by the Royal Horticultural Society, and is likely to become popular. It has spikes of deep yellow flowers.

The large bed of kniphofias on the sloping bank of the lake in the Phoenix Park Gardens has been much admired this autumn. Viewed from the east end of the lake, just at sunset on a beautifully clear evening towards



the end of September, it presented a complete picture of harmony.

A great deal more could be said about autumn-flowering plants like rudbeckia, coreopsis, *Anemone japonica*, *Phlox paniculata*, and a host of other useful border plants that go to make our borders an interesting study at this time. I will only mention one little gem that has only to be seen to be admired; this is one of the newer phloxes, "Tapis Blanc," it has very large white flowers, and is considered to be the finest white phlox in cultivation. It grows one foot high. This variety received an award of merit from the Royal Horticultural Society in 1906.

## Bocconia

### Cordata.

A HARDY herbaceous plant, attaining a height of from five to eight feet, when grown under proper treatment. It propagates freely from suckers thrown up from established plants. It thrives best in a deep loam with an abundance of leaf soil. Its finely cut foliage, combined with stateliness of habit, should secure it a place in all mixed borders. When planted as specimens or clumps by margins of walks or drives, where not overhung by trees, a splendid effect can be obtained. The growing of this plant is not by any means beset with difficulties, as when once established they will be content with occasional top-dressings. As this, as well as all other herbaceous plants, resent having their stems cut down before they are fully withered, this practice, which is often done with mistaken kindness, should be avoided.

P. MAHON.

## Godetia.

I HAVE noticed from time to time in IRISH GARDENING lists of annuals suitable to sow on a mixed border in front of larger herbaceous plants. Curiously I have not seen Godetia mentioned. I sowed clumps of it on two long borders, and they have given an abundant show, and are still flowering (middle of October), and have afforded much gathering in the way of cut flowers for house decoration.

C. G. G.

## A Rare Mullein

THROUGH the courtesy of the editor of *The Garden* we are able to illustrate a plant (*Verbascum leianthum*) that formed a conspicuous feature in the long herbaceous border at the Botanic Gardens at Glasnevin during the late summer. Mr. C. F. Ball says that this species is the most prominent of the genus, and that the best plant grown at Glasnevin this season sent up a huge stem

14 feet in height, half of which was made up of the branching inflorescence well covered with its yellow flowers. The lower length of the stem is clothed to the ground with silvery foliage, some of the basal leaves measuring 4 feet by 2 feet. The plants were raised from seed obtained from Asia Minor and also from Mr. T. Smith of Newry.

Several good hybrids have been raised by Mr. T. Smith of Newry from *V. phaniceum* and *V. cupreum*. *V. hybridum* Daisy Hill is an interesting plant about 1 foot to 2 feet high, bearing continuous spikes of bright coppery orange - coloured flowers, each measuring 1 inch to 1½ inches in diameter. *V. Newryensis* is a hybrid between *V. Chaixii* and *V. phlomoides*, with erect spikes of large yellow flowers with dark centres.

The following is the raiser's description of *V. hybridum Lewanika*: "One of the most remarkable plants ever raised here. It grows

about 2 feet high, and produces its flower-spikes in such a continuous manner from June until October that it is never during that period out of bloom. The flowers are almost indescribable, being a curious shade of bronzy purple." These three hybrids are well worth a trial, and are true perennials. The *Verbascums* are not fastidious plants as regards soil, but deep loam, into which the roots can bore deeply, will give the best results.



THE swallows have fled  
And the vexed wind grieves;  
No splendour more!  
The roses are dead,  
And the withered leaves  
Drift through the door—  
Summer has fled!



A RARE MULLEIN (*VERBASCUM LEIANTHUM*)

In the Botanic Gardens, Glasnevin.



# “IRISH GARDENING.”

AN ILLUSTRATED MONTHLY.

OFFICES—53 UPPER SACKVILLE STREET, DUBLIN.

## Florence Court or Irish Yew.

**F**EW ornamental evergreen trees have attained such a wide popularity, especially in church-yards or cemeteries, as the upright, Florence Court or Irish yew (*Taxus baccata fastigiata*). It may be interesting to learn that the historical progenitor—the parent of all the Irish yews—is still alive and has its home in the beautiful demesne of the Earl of Enniskillen at Florence Court, County Fermanagh, near to where it originated as a sport.

Two plants were originally found growing in a wild state, about the year 1767, by a Mr. George Willis, of Ahitirourke, when out coursing for hares, on a rock in the mountain above Florence Court, called *Carrig-na-madadh* or “Rock of the Dog,” locally known as “Willis’ Rock.” These he dug up, and planted one in his own garden and brought the other in his coat pocket to his landlord, Baron Mount Florence (subsequently first Earl of Enniskillen), at Florence Court, where it was planted and still grows. The tree that he planted in his own garden grew there till the year 1865, when it died.

The parent tree at Florence Court is growing in an uncongenial position and in rather damp soil, and for many years suffered considerable damage from cutting for propagating—cuttings having been sent to all parts of Europe and America. Its present dimensions are—height 25 feet, and at 10 feet from the ground the circumference is 66 feet. Being partially shaded by adjacent high trees, this specimen has a scraggy and looser habit of growth than its off-spring growing in open positions and in better soil. The photograph is from the shaded side, and shows two main stems rising close together from the ground, the fork being almost visible. The stem to the left measures 43 inches and the one to the right 36 inches in circumference at 9 inches from the ground. Mr. Sutherland, the gardener, says this tree is improving in health, as it has never looked so well during the past fourteen years as at present.

There are now at Florence Court several very fine specimens. One at the end of a large herbaceous border near Mr. Sutherland’s house is 33 feet in height, and at 10 feet from the ground measures 36 feet in circumference.

I have not been able to ascertain the date when or by whom the variety was first distributed. However, it appears to have been in commerce

early in the 19th century. The following advertisement in *The Gardeners’ Chronicle* for November 5th, 1842, supports this theory:—

“*Irish Yews*.—S. Farrell & Coy. offer to the Trade a large stock of Irish Yews from 8 inches to 3 ft. high. The plants are strong and well rooted, and would be disposed of on moderate terms.—Belfast, November 1st, 1842.”

This yew takes a prominent part in large and small landscape decorations, and when judiciously placed there is not a more effective subject. As an instance, there are in the gardens at Caledon Hill, County Tyrone, 59 of these yews arranged in a large square that had been a flower garden in years gone by, but is now set apart for the yews. The majority of these trees have been re-arranged since they were first introduced, and average about 30 feet in height. The largest specimen, which has not been moved since it was first planted, is 33 feet high, and at 10 feet from the ground measures 58 feet 3 inches in circumference. The position and surrounding trees, deciduous and coniferous, for which the demesne at Caledon is justly celebrated, contrasting with this great group of dark-toned yews, produce a peculiar but really grand effect.

The upright yew can only be propagated true to type by cuttings, as the seed produces a hybrid with the growth of the common yew and the foliage of the Florence Court yew.

Our thanks are due to Mr. T. Maguire, The Orchard, Enniskillen, for the photograph; and for some of the historic information to the Rev. W. Armstrong Willis, J. P., Llanvaches Rectory, Magor, Monmouthshire, who is a great-great-grandson of the Mr. Willis who found the first Florence Court yew; also to Mr. Sutherland for the valuable information and assistance in taking measurements.

PETER BROCK.

## A Note on Fertilisers.

**T**HE thoughtful cultivator recognises the difference in feeding requirements between ordinary annual crops and those that are of a perennial nature. In the first group the manure must be readily available if the crop is to benefit, while in the second group—growth being slower—it is better and more economical to use a slow-acting fertiliser or one that gradually dissolves in the soil. Speaking generally, vegetables and annual flowers require quick-acting compounds of nitrogen, phosphorus and potash, the relative quantities needful for producing the best results depending upon the richness of the soil in these constituents at the time of application. While annuals, or those treated as annuals, entirely depend for their development upon the food

taken up from the soil during their one and only season of growth, the fruitfulness of perennials depend very largely upon the amount of organic food (starch, &c.) stored in the root or stem during the previous year or years of growth.

So far as fruit trees are concerned it should be remembered that suitable compounds of phosphoric acid, potash and lime are essential in establishing that plumpness and hardness of stem expressed by the term "ripeness of wood," as well as in contributing to the successful ripening of the fruit and seeds. Added nitrogen in such cases is not nearly so important as in the case of rapidly-growing vegetables, and should, indeed, only be supplied when the trees, by lack of vigour, show the real need of it. An excellent method of adding nitrogen to a soil growing fruit trees is to dig in a growing, leguminous crop (such as vetches) in the spring.

Stone fruit require a liberal supply of lime; gooseberries and currants in certain soils require, perhaps, a little help in the way of a soluble, nitrogenous manure; raspberries, blackberries and loganberries are benefited even more so with such help, while, in most cases, strawberries will be all the better by a judicious use of soluble compounds of all three—nitrogen, phosphoric acid and potash. Grapes in bearing make, perhaps, the greatest

demand upon the soil of any fruit crop we grow, and for that reason they ought to be liberally treated in the way of food. Phosphoric acid and potash are specially drawn upon, and care should be taken, therefore, to supply them with

manures containing these essential substances. For roses and perennial plants in the herbaceous border compounds containing phosphoric acid are

particularly required, and bone-meal is one of the best forms in which to supply it. It should be dug into the soil when planting, and applied as an annual surface dressing every autumn.

As nitrogenous manures tend to produce a luxuriance of foliage great care should be observed in its use for other than such crops as we grow for the production of shoots or leaves. As to the quantities to be supplied, practical gardeners will understand

why we hesitate to give particulars as to quantities. Feeding plants is an art not to be learned through books or magazine articles, as both soils and crops differ so materially in their composition and

requirements, while both are modified by tillage, aspect, and general conditions of weather. But fundamental principles can be stated, and if these be understood and remembered the observant cultivator can, with a little clear reasoning, apply them to his own particular crops and locality.



*Photo by]*

THE ORIGINAL IRISH YEW

*[T. Maguire.*

At present growing in the Grounds of Florence Court, where it was planted about 1767. Photographed October, 1908.

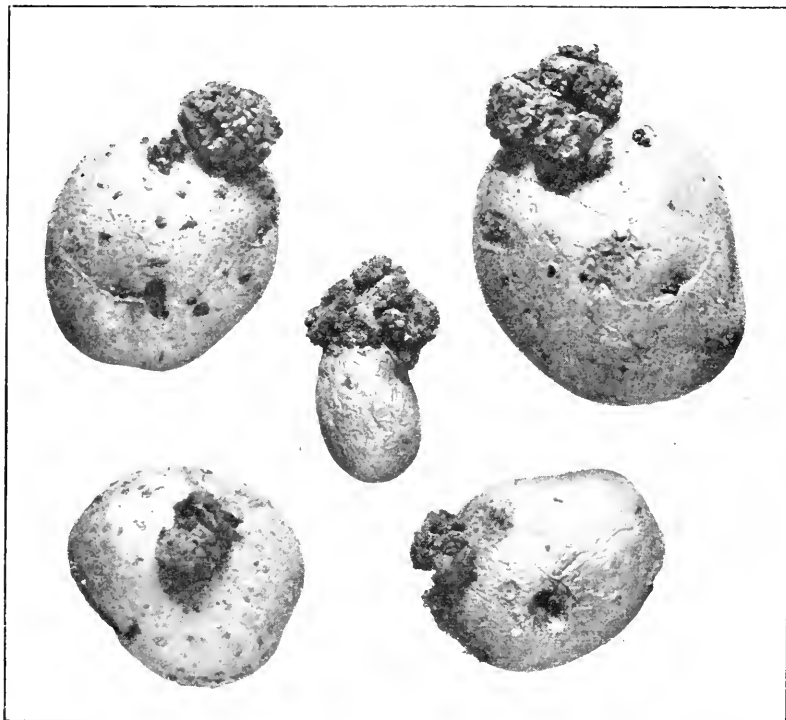
## Potato Scab.

IN the August number of IRISH GARDENING reference was made to what may, perhaps, be called the *latest* disease in potatoes (though it has been known in England for about twenty years)—namely, “black scab” or “warty” disease. This disease has not yet, so

they are usually darker than the rest of the tuber, but parts of them may be light in colour, and then they somewhat resemble a piece of a cauliflower head; indeed in some districts the name “cauliflower disease” is in vogue. They may also somewhat resemble the “convolutions” of a brain.

This, although undoubtedly the most to be

feared, is not the only scab in potatoes. In Ireland there are at least two other forms of scab, one of which is also illustrated, for purposes of comparison. This scab—the *ordinary* potato scab—has been extremely prevalent this season, probably as a result of the comparatively dry summer, for this form of scab is favoured by dry seasons, and is more characteristic of light soils than heavy ones. It can scarcely be said to be more than “skin deep,” and beyond somewhat unsightly disfiguration of the tuber it does not appear to do much harm. Many people, indeed, believe that potatoes attacked in this way are of particularly good cooking quality. The cause of this disease is at present somewhat obscure. Formerly it was supposed to be due merely to mechanical irritation of the skin, by rough substances in the soil coming into contact with the growing tuber. It is, how-



[Photo by]

[Dr. Pettybridge.]

FIG. 1.—POTATO TUBERS (FROM ENGLAND) SHOWING THE CHARACTERISTIC WART-LIKE OUTGROWTHS OF BLACK SCAB.

far as is known, been discovered to be in Ireland, but there is every probability that it is present with us and that it will be observed before very long. Although during the past few years the disease has been found attacking the field potato crop, it is especially in gardens that it has hitherto been most prevalent in Great Britain. Hence, Irish gardeners in particular should continue to keep a sharp look out for the appearance of the disease, and especially so seeing that it has now been scheduled by the Department of Agriculture and Technical Instruction for Ireland under the Destructive Insects and Pests Act, 1907.

To be forewarned is to be forearmed, and the accompanying illustration (Fig. 1) will give a good idea of the general appearance of diseased tubers. The warty outgrowths usually have a characteristic “flabby” feeling, and to the touch are somewhat like soft indiarubber. In colour

ever, certain that the disease is caused by a living organism, for scab-producing soil can be made to grow perfectly clean tubers by being first sterilised. The organism is probably one of the “thread-bacteria,” and it is favoured in its growth by comparative dryness of the soil and by the presence of lime, which renders the latter alkaline. Experiments have shown that it may be prevented by laying wet sawdust in the drills at the rate of about two and a half tons to the statute acre, and laying the sets on this. Probably the acidity due to the slowly decomposing sawdust keeps the scab organism at bay. Peat may also be used in the same way.

Another form of scab, to which the name of “corky scab” has been given, somewhat resembles ordinary scab, at least superficially, although the organism causing it is a very different one. The microscope is almost a necessity for diagnosing this form of scab with

certainty, and although it is probably fairly prevalent in some parts of Ireland as well as in Great Britain, its real economic significance and the extent of the damage done by it is, as yet, hardly known with accuracy. G. H. P

## Royal Horticultural Society of Ireland.

THE schedule for the spring show, 1909, is now in the hands of members. The council has not at the immediate present been able to arrange the date on which it will be held, but that, approximately, will be mid-April; nor is it at the moment of writing definitely settled where the show will be held. These details when fixed, however, will be at once notified. Copies of the schedule may be had on application to the secretary at the society's offices, 5 Molesworth Street, Dublin. A new class will be found in the spring programme for tree (winter-flowering) carnations, six pots (pots not exceeding seven inches) being asked for in at least four distinct varieties. There is also a new class for six pots of St. Brigid Anemones (pots not exceeding seven inches) in at least four distinct shades of colour, as well as an additional class for hyacinths. Apropos of the latter, the reading of the schedule, "Hyacinths, six pots, three of one variety in each pot," and also the smaller class, three pots, three

in a pot, will scarcely, we think, be taken for anything but what is intended—viz., six and three distinct varieties respectively; but a doubt has been expressed as to the clearness of the wording. In any case and in all cases where any question of the kind does arise in the interpretation by prospective exhibitors, all can and should be definitely settled by communication with the secretary. At the council meeting on October 8th a superb example of violet culture was seen in a bunch of Princess of Wales, a foot across, sent in by Mr. J. Hume Dudgeon from his gardens at Merville, Booterstown, a first class certificate of cultural merit for the same being awarded to Mr. D. O'Leary, Mr. Dudgeon's gardener, a similar award being also made for a bunch of mammoth mignonette sent by the same gentleman, who also contributed, with other things, spotless

blossoms of *Magnolia grandiflora*, appropriately staged with its own glorious foliage. Of all exotic evergreens which not only tolerate our climate, but flourish in the more favoured spots of the Green Isle, one is inclined to give the palm to this Carolinian

shrub, a few fine examples of which are to be found in old County Dublin gardens. The largest we know of, however, is growing in the gardens of the Loreto Convent, Bray, covering a large area of a lofty wall.

Seven new members were elected at the last council meeting (October 8th), Messrs. C. F. Ball and J. J. Egan, J. P., becoming annual members, and as practical members Messrs. D. O'Leary, Jas. Dawson, W. Usher, T. Masterson, and W. H. Craig. This, added to recent previous elections, with names booked for election at the next council meeting, the 12th inst., is encouraging, but, like *Oliver Twist*, we want more.

## Fuchsia Riccartoni in the West.

THE following passage is quoted from the new book, "Alpines and Bog Plants," by Mr. Reginald Farrer, the author of "My Rock Garden," recently alluded to in these columns:—

"BENEATH the august cone of Croagh Patrick lies a tiny little ruined abbey, buried almost to its eaves in the encroaching sands of the shore. Far away beyond a great square island, blue and very pale, stands up on the uttermost rim of the great pale sea. And in this remote corner of peace and death *Fuchsia Riccartoni* has made itself a beautiful shroud for the dead shrine. Everywhere, amid the walls and ruins and sandbanks, wave its long slender arms, and a million scarlet trumpets in the sunlight dance up and down with every faint cool breath that hovers landward over the face of the

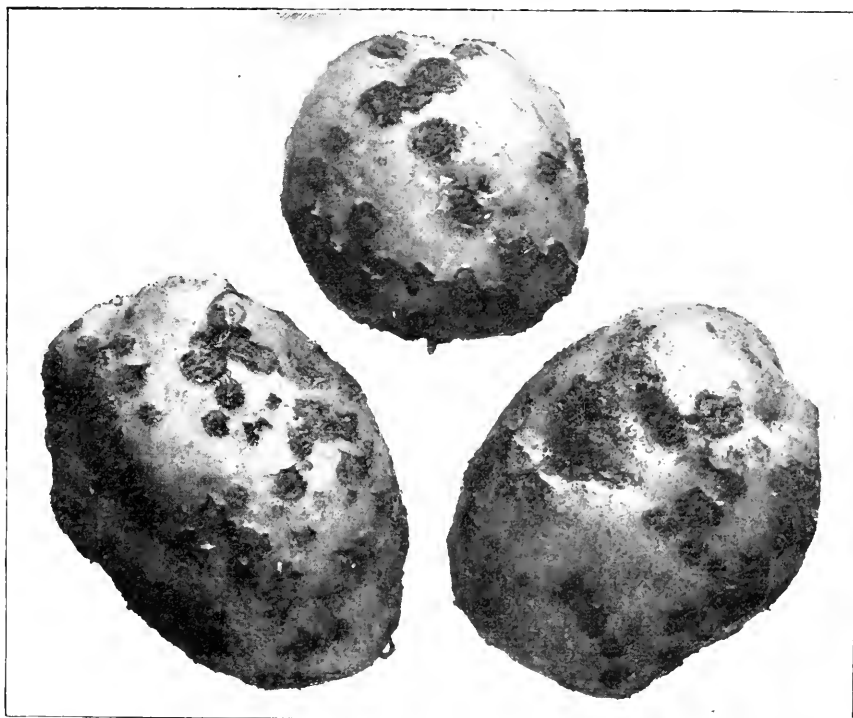
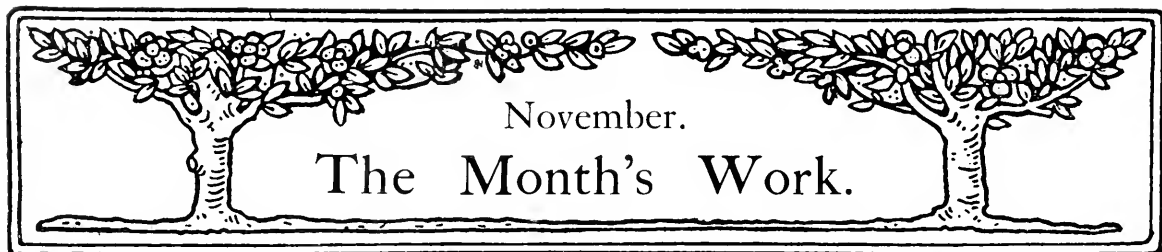


Photo by]

[Dr. Pethybridge.

FIG. 2.—POTATO TUBERS ATTACKED BY ORDINARY SCAB, WHICH IS SO PREVALENT THIS SEASON.

water. Only their incessant flicker disturbs the immortal tranquility which holds this heart of long dead holy activities as it lies buried in the shifting sand, embalmed in the golden tranquility of a golden summer afternoon."



## The Flower Garden.

By J. G. TONER, Horticultural Instructor, Co. Monaghan.

**T**HE uncommonly fine and open weather during the past month will have greatly facilitated work of every description in outside gardening, and by this time all planting of flower beds and borders should be finished and bulbs and plants of all kinds have had a favourable opportunity of establishing themselves. If the weather remains suitable the work of planting or transplanting deciduous and evergreen shrubs, roses, &c., may be proceeded with with every prospect of success.

In the herbaceous border it may be necessary to increase the number of certain kinds, and when clumps or crowns are being divided it would be well to bear in mind that the outside pieces—the younger growths—will make the best plants, and if the work is now done under favourable conditions these will flower much better and make stronger plants than those so treated in the spring.

When early flowering chrysanthemums in the open borders have finished flowering, the stems may be cut down and the crowns protected—that is, if not lifted and stored under cover—by being covered to a depth of, say, four inches with turf or leaf-mould. Ashes is good too, but very often when these simple precautions are neglected many losses occur. Although it is not always advisable during the summer months, especially on light and dry soils, to use the grass collecting on lawn mowers it will be well to do so on every occasion now, otherwise the cuttings will appear most unsightly and untidy. During the dull months too much care cannot be given to making all the surroundings as pleasing and presentable as possible.

Under glass there should now be great reward for employer, amateur and gardener alike, when the glories of the chrysanthemum are put forth in their welcome and brilliant splendour. Great care will be necessary, however, to keep plants and blooms in good condition, watering being a matter that requires the most scrupulous attention; it should be done thoroughly when necessary, and as early as possible in the day, and always have some ventilation.

Arum lilies that were well tended during the summer will now respond very soon to a little attention in the way of heat. Few more graceful and elegant plants are to be had at this season than well-grown arums in five inch pots. Placed in the midst of a few healthy ferns, their purity and simplicity is quite charming.

Sweet peas, dahlias, begonias, &c., have been spared for a long time this season, but when the inevitable frost comes they should be lifted and stored as advised last month.

There are many shrubby plants, too, that may now be prepared for forcing, such as azaleas, lilacs, roses, rhododendrons, &c., and if carefully attended after being placed in a little heat will serve to make a good show with cinerarias, primulas, &c., when the bulk of the chrysanthemums are quite over.

Roman hyacinths, paper white and polyanthus narcis-

sus and freesias may also be brought on, and very easily, too, if treated as recommended in former numbers. Pelargoniums may be kept quiet in a cool house. Cinerarias and calceolarias in pits or frames will require plenty of air on all favourable days—too much can hardly be given. Material should be always at handy for the purpose of protecting them during frosty spells. They are well worth all the attention they claim, seeing their usefulness and beauty in the spring.

## The Fruit Garden.

By GEORGE DOOLAN, Instructor in Fruit Culture, Department of Agriculture.

**T**HIS is usually a busy month with the fruit grower and the gardener. The pruning of the various fruit trees will demand attention, and where new plantations have to be made this is the best time to carry out the work, always with the proviso "weather permitting." Fruit trees of all descriptions can now be procured at a very favourable price through the Secretary of the County Committee of Agriculture in nearly all the counties. By sending a post card to the secretary a printed form is received on which are given the kinds and varieties of fruit trees, the price, and other particulars. Advice is also given by the Horticultural Instructors, who will recommend the best varieties to grow in their particular counties. Where such advice is not obtainable the list set forth below gives the best all round varieties to plant. In making an extensive plantation, however, it is best to pay a visit to a reliable nursery and make a selection of the trees required. The names of such nurseries may be found in the advertisement pages of this journal.

**PRUNING.**—This work should now be taken in hand, especially where a large number of trees have to be done. Commence with red and black currants, then gooseberries, and finish with the larger fruit trees. Where gooseberries are subject to attack by bullfinches, defer pruning until February as a means of saving the buds. However, where these birds do not abound, the pruning of gooseberries may now be done. The principles of pruning, when once understood, can be applied to nearly all fruit trees. The great object is to keep the branches sufficiently apart so as to admit air and light to make the wood and spurs firm, hence better fitted for bearing. Take a gooseberry for example. As is well known, it is liable to make dense growths unless pruned; the result is weak growth and small fruit, and a great difficulty is experienced by pickers when bushes are unpruned. When pruning leave sufficient room for the hand to go between the branches. In old bushes encourage young growth, and cut out old branches occasionally: the young growths produce the best fruit. Thick, soft growths arising from the base of the bush should be pulled out. In pruning black currants gradually cut out the old branches, and preserve as much of the young growth as possible, as it is on the young wood that the fruit is produced. Red currants differ. However the old wood must be preserved, because the fruit is borne

on spurs on the old wood; therefore, in pruning, cut back the young growths to an inch or two and shorten the leading shoot to half its length. Apples, pears and plums may be treated somewhat similarly in their pruning. Shorten the past season's growth on the leading branches to one-third of its length. Cut to an outside bud; this will tend to make the branch grow in an outward direction. Endeavour, when pruning, to regulate the main branches, and preserve the symmetry of the tree. This is only possible when the trees are young. In pruning old trees it is a question of thinning the branches where too thick.

**STRIKING CUTTING OF CURRANTS AND GOOSEBERRIES.**—This is the proper time to raise a stock of the above. After pruning choose shoots about a foot or so in length, firm and straight. Pinch out the buds in the lower part of the cutting. This will prevent suckers growing from beneath the soil. Prepare a nice bed in a shady part of the garden, breaking the soil thoroughly in the digging. Place the cuttings about five inches deep, in lines fourteen inches apart, and allow six inches between the cuttings. Gooseberries and currants root readily if treated thus, and will be fit to be transplanted in a year. The soil between them should be stirred occasionally with the hoe and the weeds destroyed.

**LIST OF FRUIT TREES SUITABLE FOR AMATEURS AND SMALL FARMERS:**—*Apples, cooking varieties*—Early Victoria, Grenadier, Ecklinville, Lord Derby, Stirling Castle, Lane's Prince Albert, Bramley Seedling. *Dessert varieties*—Beauty of Bath, Lady Sudeley, James Greive, Allington Pippin, Worcester Pearmain, Cox's Orange Pippin, Newton Wonder. *Pears*—William's bon Chretien Doyenne du Comice. *Plums*—Victoria, Monarch, Czar and River's Prolific. *Black Currants*—Boskoop Giant, Black Naples, Black Baldwin. *Red Currants*—Raby Castle. *Gooseberries*—Whinham's Industry, Keepsake, Whitesmith. *Raspberries*—Superlative.

## The Vegetable Garden.

By WILLIAM TYNDALL, Instructor in Horticulture, Co. Kildare.

**W**HETHER some soils are benefited by autumn digging is one of those points on which gardeners, though differing, may each be right, and the same may be said as to the benefit of digging manure into light sandy soils at this time of the year for next year's crops. Now, these are points the consideration of which might form a most useful discussion in IRISH GARDENING.

Soils where grubs, wireworm, and millepedes are troublesome should be deeply dug or bastard trenched, the surface then being covered over with gas-lime. Lightly fork in. This will do away with much of these troublesome pests. Soot-lime, wood-ashes, and burnt garden refuse are also all valuable, but are best used in the spring before sowing such crops as onions, carrots, &c. Vaporite and apterite are also valuable for destroying injurious insect pests in the soil, and all garden owners should give them a trial.

**BRUSSELS SPROUTS.**—These are far better this season than I expected, and on good strong soils are better than during most seasons. As amateurs and cottagers very often put out the plants too closely, most likely by now many of the leaves are decaying, and these not only look untidy, but if not gathered off will affect the quality of the sprouts, which require a free circulation of air if good quality sprouts are to be pulled. Do not pull or cut off leaves unless that they are decaying, as not alone are all the good leaves all required to assist in the swelling of the sprouts, but they also give protection from severe frost. Another practice of cutting

the heads off Brussels sprouts during the winter for use as greens is also to be condemned, as not alone does the crop of growing sprouts suffer, but if severe frost follows many of the plants may be killed.

**CABBAGE.**—Plants put out in September have made extraordinary growth on account of the fine and open weather, even those put out the first week of October are growing fast, so that for both lots it would be advisable to earth up the plants.

**CELERIAC.**—Although no harm will be done to the roots if well earthed up and protected with dry strawy manure or leaves, still many growers prefer to lift and store in sand in a cool shed.

**RHUBARB.**—After a rest, rhubarb forces easily enough if placed in such a position that heat can be given and maintained, and the roots kept moist. Under the stage of a warm plant-house is a capital place if light is excluded and sufficient room given for the stalks to grow. Be sure and put plenty of soil around the crowns, and such plants will give double the quantity of pulling compared with those placed only on the surface and roots exposed.

**SEAKALE.**—If you are to be successful in growing good seakale early in the winter, you must have strong roots that have had a good rest, so do not be in a hurry to start forcing too soon or take up more roots than are required for the earliest batches. As with rhubarb, it is often a matter of convenience where and how the roots are forced, but you must have a temperature high enough to force growth, yet not too high, or the produce will be thin and spindly, and often tough when cooked. If only a small supply is required, the roots can be put in pots or boxes and placed in warm plant-houses under the stage, excluding all light; but the pots or boxes will require to be close to the hot-water pipes. After seakale and rhubarb have got several nights' frost, they start and grow more freely even in a much lower temperature, so that it is a mistake for amateurs or cottagers to attempt to force these vegetables early in the season unless specially required, therefore we will defer giving instructions on forcing in the open ground where growing till the December number.

**GLOBE ARTICHOKE.**—Nearly every spring I hear complaints of their being so very much injured that growth is late, and as strong shoots give the best results, try and protect these with long dry litter, putting even a little over the tops of the plants. Do not use decayed manure, as is so often done, as this gives no protection.

## Record of Rainfall.

Compiled by Mr. ALEXANDER REID, The Gardens, Crom Castle, Newtownbutler, County Fermanagh.

	Rainfall for			
	1925 ins.	1906 ins.	1927 ins.	1928 ins.
January . .	2.13	4.91	2.08	3.93
February . .	2.27	1.38	2.73	2.74
March . . .	4.33	2.34	3.00	4.59
April . . .	1.06	2.04	2.05	2.50
May . . .	1.00	3.33	3.24	3.50
June . . .	1.27	.45	5.44	2.19
July . . .	0.94	.72	2.59	2.79
August . . .	5.11	5.16	3.31	2.28
September .	1.31	1.61	1.83	7.10
October . .	1.49	1.39	3.83	
November .	2.54	2.62	2.61	
December .	2.74	3.34	3.76	
	26.19	28.69	37.47	





## The Reader.

THE BOOK OF FERN CULTURE.—By Alfred Hemsley. London: John Lane. Price, 2/6.—The present little volume is a welcome addition to the well-known "Hand-books of Practical Gardening" issued from the Bodley Head publishing house. It deals with the propagation and cultivation of all the more popular hardy and greenhouse ferns. At the outset the author very sensibly remarks that "in dealing with ferns, as with other plants which come under cultivation, it is not always advisable to try to follow natural conditions too closely. Yet there are some points that are essential. Take, for instance, the native and other hardy ferns. They mostly grow in the shade of deciduous trees which come into leaf late in the spring, after the ferns have made a good start. When the leaves fall in the autumn, daylight is again let in, while the leaves, grasses, &c., that have grown up around the ferns, all give some protection during the winter, and when further decayed the accumulations afford new surface-matter for the roots. Now, in what may be termed a neat garden all these accessories are removed, and the ferns suffer in consequence. This is one reason why the hardy ferns are not more popular." Clear directions are given for the collection and sowing of spores and for the preparation of the different kinds of soil used in potting. The standard soil recommended consists of two-thirds loam and the remainder made up of beech or oak leaf-mould and manure from a spent mushroom bed, with sand added if the loam used is inclined to be heavy. Peat, according to the author, is only really needed by comparatively few species. Market growers, as a matter of fact, hardly ever use it now. The sections dealing with the work of potting and watering will be found most useful to beginners. The bulk of the book is devoted to chapters on the different kinds of ferns and their special requirements, and includes references to tree ferns and selaginellas, while Chapter XII., concerned with ferns for window boxes and for home decoration, will be interesting to women folk desirous of making the "home beautiful" by the use of these peculiarly graceful and ever-popular plants. We have before us as we write a very pleasing table decoration in the form of a most thrifty plant of the common Hartstongue fern, which was carefully raised from a shady bank in July last and planted in a large ornamental bowl without drainage, filled with gravel and spent farmyard manure, and carefully watered so as not to induce sourness of the soil on the one hand or allow dryness on the other. Since then it has formed five new fronds, and several others are at present unrolling. Being a shade-loving plant it thrives excellently in an ordinary well-lighted room. The book concludes with a short chapter on the enemies of ferns. Twenty-eight beautifully executed plates illustrate this attractive little volume. There is an indescribable charm associated with ferns and fern culture, and we strongly recommend any reader who has not yet devoted time and attention to their cultivation to buy this inexpensive little book, feeling sure that its perusal will create a desire to possess, and enable the merest amateur to grow, the commoner kinds of a race of plants that affords perennial delight to the grower.

HOLLY, YEW, AND BOX, WITH CHAPTERS ON OTHER EVERGREENS. Well illustrated. By William Dallimore. London: John Lane. Price, 7s. 6d.—Few men have had a better opportunity of acquiring a thorough knowledge of hardy trees and shrubs than Mr. Dallimore. As foreman of the national arboretum at Kew he has had the practical charge of what is probably the finest collection extant. Mr. Dallimore has not been slow to place his experience at the service of the reading public interested in arboriculture. A prolific writer in the weekly gardening papers, and responsible for the whole of the text in "Pictorial Practical Tree and Shrub Culture" Mr. Dallimore has shown himself always thorough in all his literary efforts. It was, therefore, with a feeling of pleasurable anticipation that we opened Mr. Dallimore's latest work—nor are we disappointed. The section devoted to the holly may be taken as typical of the whole book. Commencing with a general description of the family, the author goes on to describe propagation, planting, and pruning, and deals with these in a masterly manner. He is severe in his denunciation of the clipped holly, and certainly anyone who once saw the fine avenue of hollies at Kew would surely never again wish to clip a holly. The various uses of the holly—as a town tree, as a hedge plant, medicinal properties and history—are all dealt with in a thoroughly practical and intensely interesting manner. Coming to the description of the very numerous varieties of the common holly, Mr. Dallimore institutes a notable departure in nomenclature. A considerable number of varieties usually accredited to *Ilex aquifolium* are here separated from that species and placed under the Canary Island *Ilex platyphylla*. The change is made on the grounds of the much closer resemblance of the varieties to *Ilex platyphylla* in leaf and growth and to the fact that they never show any tendency to revert to *I. aquifolium* as do the true varieties of the latter species. A further separation is made of such forms as *Ilex Hodginsii*, *I. Wilsonii* and *I. Shepherdii*, which most closely resemble *I. platyphylla*, but appear to be of hybrid origin. We think this change is wholly justifiable, and will help greatly in rescuing the hollies of the types instanced from a state of chaos. No change of this kind was made in the last edition of Kew hand list of trees and shrubs, but we find further differences between Mr. Dallimore's nomenclature and that of the hand list—for instance, *I. aquifolium latispina minor* is by Mr. Dallimore reduced to *I. aquifolium hastata*, and while Mr. Dallimore gives *I. aquifolium cookii*=*obscura* the hand list retains both. On page 67 *I. aquifolium whittingtonensis* is apparently referred to as *I. aquifolium whittinghamensis*. Other species of hollies are fully dealt with, but we find no mention of good examples of *I. perado* as grown in some Irish gardens. The subsequent portions of the work dealing with yew, box, and other evergreens are dealt with in the same practical and interesting way. Evergreen oaks, bamboos, heaths, and many other genera are noticed and described. The printing and paper are all that could be desired, while the illustrations are excellent, though we think many an Irish garden could have afforded a much finer illustration of an Irish yew. As a reference work for arboriculturists we think the work under notice indispensable, and the lover of plant-lore will find much of interest within its pages. We are glad to be able to congratulate author and publisher on the production of a really useful book.

J. W. B.

BEAUTIFUL FLOWERS AND HOW TO GROW THEM.—Edited by Horace J. Wright and Walter P. Wright. London and Edinburgh: T. C. and E. C. Jack.—This, which promises to be a very handsome work, is being issued in monthly parts at a shilling each. Each part is illustrated with six full page coloured plates, reproduced from paintings by good artists, and, as is to



be expected from a firm that has acquired such a reputation for high-class colour work, the plates are beautiful indeed. The subjects under treatment in the two instalments already to hand are Roses and Bulbs. It is invidious to mention any particular plate where all are so good, but "Anemone and Crocus," by Margaret Waterfield, is a charming study in colour.

## School Gardening.

By L. J. HUMPHREY, Special Instructor in School Gardening under the Department of Agriculture and Technical Instruction for Ireland.

WITH the season's work almost at an end in the school garden preparations must be commenced for the work of next year, and if the work of digging and trenching is got well forward on vacant ground early in the autumn there will be a great saving of time later on.

The experiences of the summer will have shown what alterations and improvements can be made in the arrangement of the garden, and at any convenient opportunity the work should be commenced. When new gardens are to be started it is of the utmost importance that the work of preparations should be made in good time in order that the ground may be ready for the planting of fruit trees and bushes before the soil loses its summer heat. In such gardens as much as possible of the garden should be dug to the depth of two spits, and if vegetable refuse is mixed with the lower spit it will decay and help to enrich the subsoil as well as rendering it more easily cultivated in subsequent years. In heavy clay soils manure may be added in the autumn, as such soils retain the valuable substances contained in the manure which in lighter soils would be washed out by the rains of the winter. Clay soils can also be much improved by a dressing of lime, which has the effect of coagulating the minute particles of clay which would otherwise tend to choke the soil spaces and so prevent proper drainage and admission of air to the soil. A good way of enriching the soil is by digging in garden refuse, such as dead leaves, pea and bean stalks, and similar material. The substances which have been taken from the soil by these crops are, in this way, largely returned and the fertility of the soil contributed to. The practice of burning all garden refuse is a wasteful one, as, although the mineral constituents are in this way returned to the soil in the ashes, the more valuable nitrogen is completely lost. Some kinds of refuse can only be effectively got rid of by burning, and plants, such as switch and bindweed, as well as all diseased plants which are likely to spread infection, should be thoroughly burnt and the ashes returned to the soil. In heavy clay soils some of the clay may be burned with the rubbish, and afterwards added to the soil, which it will help to lighten considerably for subsequent working. It should be remembered, however, that treating clay in this manner destroys all the organic matter it contains, and, therefore, this burning of clay should not take place very frequently, nor in such proportions as to render the soil unusually deficient in organic matter.

The whole of the work of preparing the ground should be completed as early in the winter as possible, as in this way the soil is thoroughly exposed to the influence of the weather and rendered more suited to the needs of the crops to be afterwards planted. The later months can then be occupied in re-making the paths and walks and renovating or renewing edgings. In this way the advent of spring will find the soil in good order for sowing, and planting can go on without other interruption than that caused by unfavourable weather.

## Bee-Keeping.

By T. MAGUIRE, The Orchard, Enniskillen.

THE season has been a remarkable one in many ways, principally for the varied results obtained by bee-keepers within a short distance of each other; some having very large takes to report, whilst their neighbours have got next to nothing. The failures, where not due to want of sufficient stores over last winter, were nearly all due to excessive swarming combined with mismanagement. It is very hard to instil into some people the advantage of returning the swarm to the parent stand; they *will* insist on putting it up in a new location, with the result that little or no honey is obtained from either the parent stock or swarm. Even when increase is desired, the swarm should be hived on the old location, giving it the supers and fresh frames of foundation to replace those removed for the nucleus. When this is done the yield of honey is almost, if not quite, as good as if all the bees were allowed to remain; the bees seem to work with redoubled energy, and when the operation is performed early in the honey flow all the bees are devoting themselves to gathering, there being no brood to bother with until the flow is nearly over.

Swarming was unprecedentedly rife in the early days of July. A sudden glut of honey coming after a cold or wet spell always entails swarming, unless careful and instant precautions are taken when the heat arrives. Where no precautions are taken the bees are sure to become demoralised, and though the conditions be ever so ideal, very little honey will result. The effect of shading hives from the intense heat of the sun was well shown this year. Stocks so shaded and with large ventilators open underneath were working right through the fierce heat, whilst others not so cared for were blowing off swarms every day.

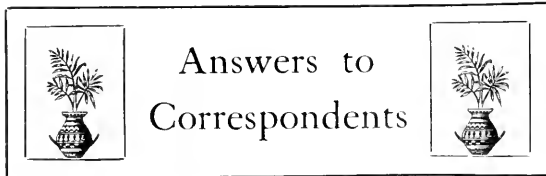
The quality of the honey gathered in July must be very high all round. In this locality it was very thick, but somewhat dark in colour, and of fine flavour. The August flow produced a lighter-coloured honey, also of good flavour, but thinner and inclined to candy.

Foul brood, where properly looked after, ought to be well in hand this season. The swarming time provided very favourable conditions for clearing out the disease by the "starvation" treatment—the only really effectual method—and it is to be hoped a much smaller percentage of diseased stocks will be found next spring. In this county foul brood is on the wane. Unfortunately, our instructor was taken away from the bees to superintend potato spraying just at the time when his advice on this and other matters, especially to beginners, was most needed. The latter were totally at a loss when complications began to arise with their transferred stocks, and when swarming set in. It is to be hoped, for their sakes, that some better arrangement may be made next year.

The more experienced hands had a good haul of honey. Four crates were general, five fairly common, whilst I know a few who got six crates of marketable sections off a single hive. Some people even report seven; they would probably make it eleven if they thought anyone would believe it. Those working for extracted honey got 150 lbs. in some cases, but there are very few working on that system in Fermanagh.



THE Department of Agriculture has recently issued a leaflet (No. 93) giving information on the methods of collecting, packing and marketing some of the more important wild fruits of the country. The fruits to which attention is called are blackberries, bilberries, crab apples and sloes. Readers interested in the subject would do well to procure a copy, which can be had free of charge on application to the secretary.



**RESURRECTION PLANTS** ("A. B. C.").—There are several kinds of plants known by this name, but the commonest one is the "Rose of Jericho" (*Anastasia Hierochuntia*), a cruciferous plant native of the sandy deserts from Arabia and Syria to Algeria, and originally brought to Europe by the Crusaders. It is a branching annual about six inches high. After the fall of the leaf the branches become woody, and curve inwards so as to enclose and protect the seed-vessels in a kind of wicker-work ball. In the dry season the dead plants are uprooted by, and rolled hither and thither by, the wind. When the rainy season returns the ball unrolls, and allows the seeds to escape. Another "resurrection" plant is the "Bird's Nest Moss" (*Setaginella lepidophylla*), a native of Mexico, which, during the dry season, curls itself up into a tight ball, in which state it remains until the rains come, when it unrolls and starts growth again.

**FLAME FLOWER** ("Antrim").—The best time to plant the Flame-Flower (*Tropaeolum speciosum*) is in spring or early summer. Established pot plants should be procured if possible, and be planted in a cool, shady place. Though it will grow in a variety of situations, yet a cool one, either under a wall or among shrubs, seems to be the ideal place. In a shaded spot it grows freely in sandy peat soil, but if in the open requires a more retentive loam to hold the moisture. Virginian Creeper, Wistaria, and Jessamine can all be planted this month or in the spring. Either the white or yellow Jessamine would do very well for your wall.—C. F. B.

**VIOLET FLOWERING IN WINTER** ("A. B.," Waterford).—A practical grower gives the following directions:—"The usual course to adopt for a supply of winter violets is to plant strong pieces of rooted cuttings in April on a bit of rich land set apart. Use the hoe freely among them in summer, and then, if there is no frame available, lift the plants with balls and plant in the warmest spot available. The foot of a south wall is splendid, or the shelter of a yew hedge, or along the south side of the shrubbery. A few of the best plants may be potted and brought on in the greenhouse. The best varieties for the outside are the Czar or Giant, which is a long stemmed variety of the Russian. For framing, Princess of Wales or Admiral Avelan and the double variety Marie Louise may be grown." As "damping" is the greatest trouble violet growers have to contend with it is necessary to grow them in a porous soil to secure efficient drainage.

**AUTUMNAL TINTS** ("Schoolmaster").—Of trees and shrubs you have a very wide selection, but for your purpose we would recommend maples (*Acer*). In *A. circinatum* the foliage changes to red and light scarlet, *A. japonicum* to golden yellow, *A. plantanoides* (or Norway maple) to yellow and brown, and *A. rubrum* to deep crimson red. Other beautiful kinds are the purple-leaved birch, Dogwoods (*Cornus*), and *Crataegus coccinea*, a North-American thorn in which the leaves are reddish scarlet, blotched and spotted with blackish purple. Mention may also be made of certain species of oak (*Quercus*) such as *Q. coccinea*, the scarlet oak; *Q. conferta*, or Hungarian oak, and *Q. rubra*, or champion oak of North-America. Of shrubs, choice may be made from *Berberis thunbergii* (orange and yellow tinted), *Euonymus atropurpureus*, *Prunus pumila* (various shades of red and crimson), *Sumachs* (*Rhus*) in variety such as *R. cotinoides* and *R. glabra*, and many species of viburnum.

**POTATO SCAB** ("T. C. Loretto").—The potato tuber you send is attacked on the skin by the *ordinary* potato scab. The attack has been severe, so that instead of isolated spots of scab (see illustrated note on Potato Scab in this issue) being present, the whole surface has become more or less uniformly scabby. Internally, also, the tuber is diseased, and it is attacked both by the blight fungus (*Phytophthora infestans*) and by "dry-rot" (*Fusarium solani*). Tubers such as this should be used up for feeding purposes as soon as possible since they will not keep long.—G. H. P.

**ROSE GROWING IN POTS** ("Emiskerry").—The matter is quite simple; you can start now. Collect some nice, sweet fibrous loam (a good sample may be obtained from many an old hedge bank). Get some six-inch pots, and provide drainage by placing a few pieces of a broken flower pot in the bottom of each pot before planting. They may then be "plunged" in ashes and kept in a sheltered place out-of-door, bringing them indoor to flower. After flowering they should be re-potted and put out-of-door again to rest during the latter part of autumn and winter. Before starting into growth prune severely.

## Correspondence.

**SIR**,—During my recent travels in Ireland I was struck with the terrible prevalence of the apple sucker (*Psylla mali*) in practically every orchard I visited. The owners so seldom realise the nature of the pest and the harm it was doing that I should like to bring to their notice the habits of this little insect and the means of destroying it. The oval, yellow eggs are laid during the autumn in the crevices of the bark of the twigs, and more often in the hairs of the fruit buds. The larvæ hatch out in the spring, directly the buds open, and make their way into the centre of the trusses of bloom and suck the sap from the flower stalks, causing the flowers to wither and the petals to go brown. Sometimes the flowers die off naturally, but fruit does not set. Frost is generally blamed for this, and the grower accepts the misfortune with as much philosophy as he can muster.

The larvæ, which are at first yellow, afterwards changing to green, exude small globules of honeydew, and as these are much more easily found than the insect, its presence is clearly indicated when these globules are present. During September the insect passes into the final stage—*i.e.*, the perfect insect which has diaphanous wings and green body, afterwards changing to yellow. The only time in the year that the insect can be successfully attacked is when it is in the earliest larvæ stage—*i.e.*, after the fruit buds have opened, but before the flowers are expanded.

The trees should then be sprayed with the insecticide made as follows:—Boil 2 oz. of quassi chips for 2 hours in 1 gallon of water, strain off chips, and add 1 oz. of soft soap. In large plantations we boil 8 lbs. chips in 30 gallons of water, and add 4 lbs. soft soap, and then add another 30 gallons of water, thus reducing labour by one-half. Apply with any appliance that will throw a fine spray, driving the fluid well into the blossom trusses.

This fluid will not damage the blossom even if it is full out, and has been used in our nurseries and plantations for years. It not only kills apple sucker, but also aphides at the time they are most vulnerable. No winter spray has yet, in our experience, corroded the eggs of the sucker, and we have repeatedly cleared old orchards that have been placed in our hands to be renovated.

Trusting you will be able to find space for this letter in your valuable paper for the benefit of fruit growers in Ireland.

Fruit Tree Nurseries,  
Springfield, Chelmsford.

W. SEABROOK.

**BEE-KEEPING MADE PROFITABLE.**  
Every Bee-Keeper who desires success should read  
**THE IRISH BEE JOURNAL**

(Established 1901.)

*Official Organ of the Irish and Affiliated, Croydon, and Perthshire B. K. Associations.*

**THE LARGEST PENNY BEE PAPER IN THE WORLD.**

Received with enthusiastic approval and congratulations at Home and Abroad

"One of the brightest in the world."—*Gleanings (American).*  
"One of the liveliest and best Apian Journals in all Europe."—*American Bee-Keeper.*

Monthly 1d.; 1s. 6d. per Annum, Post Free.

**THE IRISH BEE GUIDE.** By the Editor, "Irish Bee Journal." The best book on the subject yet published. 220 pages. 150 illustrations. Paper cover, 2s.; postage, 3d. Linen cover, 3s.; postage, 4d.  
From the office, IRISH BEE JOURNAL, Lough Rynn, Dromod, and of all newsagents.

**EVERY WEED DESTROYED**  
ON  
GARDEN PATHS. BY CARRIAGE DRIVES.&c  
**"CLIMAX" WEED KILLER.**  
ONE APPLICATION IS SUFFICIENT FOR 12 MONTHS. IT KILLS THE WEEDS ROOT AND BRANCH.  
No. 1 tin, to dress 100 sq. yards, 2s. 3d. post free. No. 2 tin, to dress 400 sq. yards, 7s.  
Write for our Catalogue of Garden Helps.  
**BOUNDARY CHEMICAL CO. LTD. CRANMER ST. LIVERPOOL**

**"NICOTICIDE" Fumigant.**

Half-gallon Tin, containing sufficient for 160,000 cubic feet	60/-	Carr. paid.
No. 1 size Tin—1 pint	40,000	
No. 2 size Tin—1 pint	20,000	
No. 3 size Bottle—4 oz.	12,000	
No. 4 size Bottle—4 oz.	8,000	
No. 5 size Bottle—1 oz. (sample)	2,000	10d.

**FUMIGATORS,**

1/- each, for 5,000 cubic feet.

**NICOTICIDE PLANT WASH For Outdoors.**

1/2 Pint, 1/2; Pint, 2/-;  
Quart, 3/6; 1/2 Gallon, 5/-;  
Gallon, 10/-



**GOW'S WINTER ALKALI TREE WASH** for destroying Woolly Aphis, Scales, Lichen Moss and Apple Suckers, &c. Half-gallon, 2/6; Gallon, 5/- carriage paid. One gallon will make 20 gallons solution.

**HUNTER & GOW, 46 Thomas Street, LIVERPOOL.**

**WE WANT BUYERS**

To send to Advertisers in IRISH GARDENING for such Seeds, Plants, &c., as they may require.

**WHAT IS ADVERTISED**

In IRISH GARDENING is *worth buying.*

**SEED CATALOGUES**

"IRISH GARDENING"  
is a Specimen of our Work



Estimates free on  
application to .

AND . .

**NURSERYMEN'S CATALOGUES**

Illustrated with Half-tone and Line Blocks, and printed in high-class style by the most  
**IMPROVED METHODS**

**FALCONER, Printer, 53 Up. Sackville St., DUBLIN**

When Planting

**Fruit or Forest Trees  
Ornamental Shrubs  
Thorn Quicks  
. Hedging Plants .  
&c., &c.**

Write . .

**W<sup>M</sup>. POWER & Co.**

---

---

**Nurserymen and  
Seedmerchants**

---

---

**WATERFORD**

**OVER HALF-A-MILLION FOREST TREES** were exported from  
Power's Nurseries last season to England, Scotland, and Wales

---

**BULB, NURSERY, AND GARDEN SEED CATALOGUES POST FREE**

DEC., 1908.

TWOPENCE.

# Irish Gardening

## Contents

	PAGE
The Alpine Garden . . . . .	181
Fern Culture in Pots . . . . .	182
Shrubs with Coloured Foliage . . . . .	184
Roses . . . . .	184
Striking Cuttings under Glass . . . . .	185
A Note on Planting of Fruit Trees . . . . .	185
The Old Yew at Crom Castle, Co. Fermanagh . . . . .	186
Plants in Relation to their Environment . . . . .	188

	PAGE
The General Culture of Tropical Plants . . . . .	190
Notes from Glasnevin . . . . .	191
Current Topics . . . . .	192
Royal Horticultural Society of Ireland . . . . .	192
The Month's Work . . . . .	193
Bee-keeping . . . . .	195
Answers to Correspondents . . . . .	195
Correspondence . . . . .	196

## EDMONDSON BROS.

AGENTS FOR  
RIVERS'  
FRUIT TREES

**Seed & Bulb  
Merchants .**

GARDEN TOOLS,  
MATS, STAKES,  
FLOWER-POTS, &c.

**10 Dame Street, DUBLIN**

## MAGUIRE & GATCHELL LIMITED

200 BOILERS  
READY FOR  
FIXING

SPECIALISTS for . . .

HEATING

HORTICULTURAL BUILDINGS

Wholesale  
Agents for  
Pennsylvania  
Lawn Mowers

**7, 10, 14 & 15 Dawson Street, DUBLIN**

## WINDOW GLASS.

Polished Plate for Shop Windows.

Ornamental Glass of all Descriptions.

Horticultural Glass at Lowest Rates.

## DEATH TO THE WEEDS.

HOYTE'S WEED KILLER.

*Strongly Recommended for the Destruction of Weeds, &c.*

Price, 2s. per gallon; 5 gallons, 1s. 6d. per gallon;  
10 gallons, 1s. 3d. per gallon; Original 40-gallon casks,  
1s. per gallon.

**HOYTE & SON,** The City of Dublin Drug Hall,  
17 LOWER SACKVILLE STREET, DUBLIN.

## BECKER BROS.

PRICES—	<b>TEAS.</b>	PRICES—
2/5, 2/2, 2/-,		2/5, 2/2, 2/-,
1/10, 1/8, 1/6,		1/10, 1/8, 1/6,
1/4, 1/2.		1/4, 1/2.

8 Sth. Gt. George's St. **Dublin.**  
AND 17 Nth. Earl St.

All Original Illustration Blocks in  
"Irish Gardening" are executed by

... THE ...

## Irish Photo-Engraving Co.



Samples and Prices  
for every kind of  
Illustrative Work  
upon application.

Oriel House, Westland Row, DUBLIN.

FOR

## Flower Pots

AND

## Horticultural Pottery

WRITE

**G. J. OWENS,**  
Brick and Pottery Works,  
**ENNISCORTHY.**

Agents for Dublin and District:—Messrs. E. BROWETT & SONS,  
7 Upper George's Street, KINCSTOWN.

"Has stood the test of a quarter of a  
century."

## THOMSON'S Vine, Plant, and Vegetable MANURE.

Only Medal,  
Edinburgh, 1886.



Gold Medal,  
Edinburgh, 1891.

The result of long Practical Experience. Unrivalled  
for all Purposes. This valuable Manure is  
yearly growing in public favour.

ALSO

**THOMSON'S SPECIAL  
CHRYSANTHEMUM MANURE.**

Perfect Plant Foods.  
SOLD BY ALL SEEDSMEN.

Price Lists and Testimonials on application to  
SOLE MAKERS—

**WM. THOMSON & SONS, LTD.,**  
Tweed Vineyard,  
CLOVENFORDS, GALASHIELS, N.B.

## PLANTING SEASON

FOR . . .

ROSES & FRUIT TREES  
FOREST TREES . . . . .  
ORNAMENTAL TREES and  
SHRUBS, &c. . . . .

Write for Nursery Catalogue Post Free

**EARLY SEED POTATOES**  
FOR BOXING

Puritans, May Queens, British Queens, &c.

**VEGETABLE and FLOWER SEEDS**  
FOR EARLY SOWING

Every Requisite for the Garden

**W. TAIT & CO.**

NURSEYMEN & SEEDSMEN

119 & 120 Capel Street, DUBLIN



# IRISH GARDENING

VOLUME III.  
No. 34

A MONTHLY JOURNAL DEVOTED TO THE  
ADVANCEMENT OF HORTICULTURE AND  
ARBORICULTURE IN IRELAND

DECEMBER  
1908

## The Alpine Garden.

By WILLIAM DAVIDSON, Carton Gardens.

IN almost every garden one meets with a collection of those dwarf-growing plants which are classed as Alpines. They are not all by any means natives of Alpine regions, for many of the plants included in this category come from near the sea level.

In some places we find large and picturesque rock gardens set aside for the cultivation of Alpine plants. When those rockeries are arranged carefully, and the stones placed in their natural position, with abundant "pockets" for the plants to be placed in, and due regard given to drainage, this is an ideal place for the cultivation of Alpines.

As the plants that are grown on our rockeries are usually of varied habits it is essential in constructing a rockery to bear in mind that a variety of aspect is necessary. Some plants flourish in full sun, while others require a shady position. Rockeries with one exposure can often be made to suit the requirements of the shade-loving plants, by the formation of nooks or bays, and by skilfully placing large stones between those shade-lovers and the sun.

The body of soil for a rockery may consist of almost any sort of a free nature. The crevices which are to contain the plants must be filled to suit their respective requirements. Many Alpines suffer from rain and sleet during the

winter, and where they are planted out on the rockery it is advisable to protect them by placing a few inches above the plant a sheet of glass or even a slate.

Many Alpines, which do not grow satisfactorily when planted out on the rockery, on account of the damp weather prevailing during the winter, may be successfully cultivated in well-drained pots. Those may be arranged out of doors during the summer, and given the protection of a cold frame in winter.

Where space is available a low house set apart for Alpine flowers will give much pleasure, especially during the spring months, when inclement weather is often destructive to early-flowering subjects out of doors.

Autumn or early winter is the best time to set about constructing an Alpine garden, as then the soil will be allowed to settle before planting commences in the spring.

Space will not allow of more than a mere passing mention of some of our Alpine plants. Saxifragas, *Sedums* and *Sempervivums*, are of course indispensable for covering rockwork, and there is an almost endless variety of those charming Alpines. They are mostly found at their best when grown in full exposure to sunlight, though saxifragas of the Geum type thrive well when grown in deep shade.





The aubretias are invaluable for the rock garden, yielding as they do such a profusion of colour during the spring and early summer, when they contrast so well with the white of *Arabis albidia* and the yellow of *Alyssum saxatile compactum*. There is now an imposing array of varieties. Perhaps Pritchard's A 1, with deep violet flowers, is the best, though it is closely followed by Dr. Mules and Campbelli improved. Fire King is a very distinct variety, with glowing crimson flowers, while Olympia, Moerheimi, Lilac Queen and Leichtlini are soft shades of rose-lilac. The campanulas are an interesting group, *C. carpathica* White Star has large saucer-shaped, snowy-white flowers, *C. c. Riverslea* has violet-blue flowers; *C. G. F. Wilson* is a garden hybrid resembling Riverslea in colour, but is of a much dwarfer habit. *C. Muralis* and *C. Pulla* are of dwarf-spreading habit, the former with blue and the latter with dark purple flowers.

Helianthemums succeed on any dry, sunny situation. They come into flower in May and June, and continue on throughout the summer.

*Phlox subulata* is a remarkably fine plant for the rockery. The varieties give a splendid range of colour. Brightness is rose with scarlet eye; Vivid is rose-coloured with carmine centre; Little Dot is white with blue centre; G. F. Wilson is a lovely mauve.

Heuchera Pink Beauty and *H. Rosamunde* are welcome additions; both are of a pleasing pink shade. *Hacquetia epipactis* is one of the earliest of our spring flowering-plants, and is of a bright yellow colour. *Globularia cordifolia* produces masses of globular heads of blue flowers during summer.



PLANTING SHRUBS ON LAWNS.—The use of shrubs about a lawn is a very difficult problem, especially in landscape gardens where there is no formal or quiet background to serve as a foil for them. Shrubs seldom look well when they are planted at regular intervals about a lawn, especially if they are at all stiff or formal in habit. On the other hand, single shrubs dotted here and there are apt to seem pointless and forlorn; and so are beds of low growing shrubs such as rhododendrons or azaleas. These need a background of quiet greenery and some place that seems to be made for them, not cut out arbitrarily from a great expanse of grass. They should, therefore, always be on the outskirts of a lawn and in some bay encircled with taller shrubs or trees. Then they may have a splendid effect when in flower. Of the larger shrubs the best for the lawn are those which become small trees in time, such as hawthorns, Judas trees, and apples. It is strange that apple trees should so seldom be planted anywhere except in the kitchen garden. Apart from their use they are, perhaps, the most beautiful of all flowering shrubs, and peculiarly suitable, by reason of their spreading growth, for planting on the outskirts of a lawn. Where a lawn is very large it would be well to have an irregularly arranged orchard or grove of hawthorns at the end of it.—“Studies in Gardening.”

## Fern Culture in Pots.

FOR the decoration of rooms there are very few plants that can excel in simplicity and beauty a healthy, well-grown fern. Their cultivation is really a delightful pastime to anyone sufficiently interested to take the necessary amount of personal care that such subjects require, and the present note is written for the information of those who may require a little preliminary help in their culture. Once their special requirements are understood it will be a comparatively easy matter to grow them with success.

First of all it must be remembered that most ferns grow naturally in humid regions. They select spots in which their roots can find a permanently moist soil and their shoots a permanently moist air. For this reason, therefore, the cultivator must see that these conditions prevail during the full-growing period of his plants.

But while the roots love moisture, they require at the same time a good supply of air. The soil, therefore, must be of an open character, such as would be secured by the use of a turfy loam. The texture must admit of free drainage, as the collection of stagnant water might readily promote sourness, a condition which in itself would be fatal to the health of the roots. Hence, in potting ferns, drainage is of first importance, and the plants as they increase in size must be gradually moved into larger pots.

The operation of watering requires observation and intelligence, as the quantity supplied will depend upon the stage of growth. (1) When starting the new season's growth it is easy to over-water. Excepting what evaporates from the sides of the pot and from the surface of the soil there will be very little loss of water, and all purposes will be served by keeping the air around the pots moist. (2) As the new fronds unroll and they begin to lose water by transpiration the soil will require to be replenished with just sufficient water to balance this loss. (3) When the fronds are fully developed and the plants are at their best the roots will require a liberal supply of water, while at the same time the now matured fronds of most varieties are better able to withstand a drier atmosphere. (4) As the plant passes into the comparative rest of winter watering is less frequently required because the transpiration slackens in intensity as the fronds get older and the temperature falls. During the winter's rest it will only be necessary to prevent the soil from becoming actually dry.

Ferns are, as a rule, shade-loving plants, and this must be particularly remembered by cultivators. During the period of leaf expansion and onwards through the early summer months

(until about middle of August) it will be necessary to protect them from the direct rays of the sun, but at the same time care must be taken not to keep them under too deep a shade.

Lastly, it will be well to remember that ferns grown year after year in pots will require feeding. Under such artificial conditions of life the plants are removed from their natural sources of supply (decaying foliage, excreta of birds, &c.), and therefore something equivalent must be added to the soil in the pots. The quantity must be small, and also it must be given at a time when the roots are active and the fronds are in their full vigour of growth. A little clear liquid manure or, perhaps, better still, a little guano or Thompson's "Vine Manure," will provide the potted plants with the necessary food materials.

The following types will provide an interesting little collection to start with:—

1. **PTERIS OR RIBBON FERNS.**—These require a soil made up of a mixture of good loam, leaf-mould and sand. The loam will supply food, the leaf-mould will increase the water-holding powers, and the sand, by keeping the soil open, will secure under proper drainage a good supply of air. The plants should be repotted each spring immediately growth begins, and in some cases a further potting may be required during the course of the season, especially if we are dealing with young plants.

2. **ASPLENIUM OR SPLEENWORT FERN** will require similar culture to Pteris. It may be noted that these two kinds of ferns are best adapted for the dry-air conditions of rooms in dwellinghouses.

3. **ADIANTUM OR MAIDEN-HAIR FERN.**—This graceful fern is a general favourite, but its fronds are more liable to suffer from comparative dryness of air than the two first named. Its culture is similar to Pteris, but care must be taken not to "overpot." Its roots too are more

sensitive to the presence of stagnant water, as may be inferred from the habitat it selects in nature—damp rocks, walls, &c. Over-watering must therefore be avoided.

4. **NEPHROLEPIS** is an exotic genus of ferns with a drooping habit, and most suitable for hanging baskets in the greenhouse. They prefer a rather lighter soil than the last, and their roots love to forage in leaf-mould. *N. davallioides* is a most attractive plant when used in this way.

5. **DAVALLIA OR HARE'S FOOT FERN.**—The peculiarity of this fern is its creeping stem or rhizome, clothed with light brown scales, which, when devoid of its fronds, bears a striking resemblance to a hare's foot; hence the common name. Because of its habit of growth pans, rather than pots, are to be preferred for its culture. It loves a peaty soil, and to grow it with success this must be provided. But in using peat the beginner must be specially careful to keep it thoroughly well drained, otherwise the roots will surely sicken and die.

6. **DICKSONIA OR TREE FERN.**—Some members of this genus are suitable for greenhouse culture, *D. antarctica* being perhaps the best. In its native haunts, on mountainous slopes in Australia, this fern attains a height of twenty feet or more, but under greenhouse conditions in this country a plant four or five feet tall is considered a fairly large specimen. The stems require syringing during

nine months of the year, as prolonged dryness is detrimental to the plant. Many growers tie sphagnum moss round the stems and keep it moist during the summer months. Excessive watering of the crown must be avoided.

It is hoped that these few brief notes will be sufficiently clear and helpful for the beginner to make a start in fern culture, and when his interest passes into enthusiasm and he requires fuller information, the "Book of Fern Culture," reviewed in our last number, may be consulted with advantage.



"OUR deeds still travel with us from afar,  
And what we have been makes us what we are."



NEPHROLEPIS FOSTERI

[One of the newer varieties of the genus. Fern Culture," reproduced through

A fine basket fern. From the "Book of the courtesy of the publishers.]

## Shrubs with Coloured Foliage.

By J. W. BESANT, Botanic Gardens, Glasnevin.

BY these we mean shrubs having leaves of a golden hue, as in the golden elder, or silvery grey, as in *Atriplex Halimus*, or of a deep purple or bronze, as in *Corylus maxima atropurpurea*, or variously coloured green and white, or green and gold, as in some of the cornus and eleagnus.

When judiciously planted in park or pleasure-ground masses of these shrubs have a beautiful and telling effect, and when a reasonable number of evergreens is used such planting has the merit of being attractive at all seasons.

It is necessary to carefully study the proposed site of a group of foliage shrubs. When effect from some considerable distance is desired probably the brighter colours will be most suitable, while closer to the eye the richer tones of the purple-leaved kinds will be most satisfactory. It is useless, however, to suggest any rule in the matter of planting, as individual taste and circumstances peculiar to the district or scene of operations must be the guide. A very beautiful effect may be had by forming a large bed, carefully planting it with a collection of good colours. Such a bed may very suitably be an extension of some already existing plantation of green-leaved species, as with a darker background the effect is intensified. At the back the taller kinds may be planted, such as *Prunus cerasifera atropurpurea* and the fine new form called *Moseri*, also the yellow and white variegated forms of *Acer negundo*. The golden elders *Sambucus canadensis foliis aureis* and *S. racemosa plumosa aurea* are also useful, and, like the first-mentioned kinds, may be kept within reasonable limits by pruning. The heights of the various subjects used must be carefully studied, but it is neither necessary nor, indeed, desirable to maintain an even gradual slope. A much better effect is had when the general form is that of an undulating billowy mass, care being taken, of course, that no plant or group is hidden from view.

Other good shrubs for continuing such a scheme are the purple corylus already noted, the purple berberis, *B. vulgaris folis purpureis*; some of the beautiful purple or deep crimson-leaved Japanese maples, the purple euonymus, *E. europæus atropurpureus*, and the evergreen *Osmanthus aquifolium ilicifolius purpureus*. With these, golden or variegated kinds may be harmonised or contrasted, as the case may be. *Corylus Avellana aurea* and *Neillia opulifolia lutea* are both useful, while effective use may be made of such golden variegated subjects as *Buxus sempervirens aureo-marginata*, and others, the beautiful *Cornus*

*alba spâthii*, *Elæagnus pungens aurea*, golden tree ivies, the broad-leaved golden privet, and many others.

Good shrubs for silver effect are found in some of the boxwoods, such as *Buxus sempervirens argentea*, *Cornus alba sibirica variegata*, a very fine specimen of which may be seen near the lily pond at Glasnevin, while for a marginal group *Euonymus radicans*, "Silver Gem," is very beautiful. Silver, variegated tree ivies are also useful for winter effect, while the neat-growing evergreen *Rhamnus Alaternus variegatis* should not be omitted. Not many plants have the leaves wholly silver-grey in colour, but we have a very beautiful example of this in *Atriplex Halimus*. A very fine specimen of this shrub may be seen by the sun dial walk in the Royal Gardens, Glasnevin. As an isolated specimen *Atriplex Halimus* is very beautiful, but when contrasted with green or purple-leaved shrubs the silvery effect seems intensified.

For a small bed, or as a margin to a large one, *Santolina Chamæcyparissus* is extremely beautiful; the tiny leaves become almost white in summer, and the plant is commonly known as the Cotton Lavender.

Intending planters should endeavour to visit some comprehensive collection in summer and winter so as to note the various evergreen and deciduous kinds.

No attempt can be made to name all the coloured foliage shrubs at command, since to do so would mean simply a catalogue of names; it is much better to see the plants in a good nursery or a public garden, where colours or shades will be found to suit different tastes.

## Roses.

By O'DONEL BROWNE, M.D.

IT is a long shout from now till next July, and yet I know that when next July comes round I shall hear that oft-made remark, "I wish I could grow roses like you. You have lovely flowers—how do you get them?" Reader, you never will until you put your shoulder to the wheel, and take up roses as a study, and do some work. By work I mean not a spurt now and then, but a little well-directed work every day. "What can I do in winter?" You can at any rate see that your plants are snug and comfortable, not smothered with manure, as I do not believe in it; you can tie up a valuable shoot or standard that the wind is fast making a flag of. A hundred other little things can one find if you will only look for them. I believe that the sooner one has finished his planting the better. I do not mention ordering your trees, as that part should have been done long ago. If you have ever planted a rose or briar early in the year, say latter end of September, and if by any chance you find that you must move that tree in November, you will be surprised to see new tiny white roots already formed. These are valuable, as they show commencing root activity has begun in the newly planted tree. Of course you cannot get a plant from the nursery to do this. How, then, can we

manage to afford trees already in our possession this opportunity? I say that if you have any trees in your garden that have to be moved, then by all means get them removed to their new quarters by the end of September. What signifies those two or three flower buds that still hang on to the tree? It is far better to consider the welfare of your tree before the few flower buds that still remain! This year I had all my transplanting finished by the middle of October, and certainly the soil conditions were very favourable. I was delighted to be able to get the job done, and I rest easy, knowing that those young roots are already beginning to help those flowers of next July that make ladies ask the question above. Even as I write, a letter comes from Dr. Hall saying he has finished all his planting. You see he has caught Time by the forelock also. Little dodges like these help to make the lazy ones groan in July. "What else can I do?" You can hoe your beds now and then just to make them look tidy, and you may shorten any vigorous growths on dwarf bushes. This latter operation I really consider a very important one. Have you ever slept with a person who tumbles and tosses all night, and who *will* steal all the bed-clothes? So it is with that extra vigorous rose tree which the wind will keep on pulling and knocking about. Roses in many ways are like human beings. When they grow and are awake they vie with each other in their activity, but when they sleep they do so very profoundly, *if they are let do so*. Now, this shortening must not be done in a haphazard fashion; it would never do to cut all your trees over to the same height like you see roses pruned at railway stations, but they must be all done judiciously. When you notice, by the falling of the leaves and by the other various signs, that growth has ceased you should go over your trees and shorten any extra long rods (save climbers) to about one-third or one-half their length. Varieties of dwarf growth do not require to be touched, it is only the long rod that gives a grip to the wind that needs attention. You will be surprised when you come to prune those same trees in spring how the eyes down low have got plumped up, and are ready, so to speak, to burst into growth when the tree wakes up; and when you have finished this job do not fail to burn all you have cut off. Mildew and all the host of pests must be destroyed. Now and then you will notice a rose tree, which in planting was not made extra firm, swinging about. How can this tree rest, and how can roots commence to grow? Suckers will come to help to steady the tree, but the less you have of these the better, so if you notice a tree in this condition just make all firm with your foot. It is no use for you to blame the vendor of the plants next summer for non-success—he did not plant the tree—but blame yourself for your laziness and carelessness. Keep an eye to your standards and climbers, see that they are securely tied to their supports. Nothing will prevent a shoot or tree from in time being rubbed half through and made useless by the wind except careful attention on your own part.

Before your temporary labels have become obliterated by rain dot down in a note-book each tree's name as it stands in the bed—you have then some record of what you have. Beware when planting standards or climbers of fixing them too securely at first to their supports. Rather put a temporary tie to both to allow the tree to follow the soil down as it settles down, and then after this see that you securely fasten the tree to the support. But be merciful—remember you are not tying a wild animal. A tight ligature round any living thing will in time produce gangrene and death; therefore, have mercy. If mildew has visited you try and gather up the dead leaves—for in them lie next year's spores—and burn them. Above all do not neglect your trees as they sleep; do so and they will pay you back with their full measure next year.

## Striking Cuttings under Glass.

**I**F we require good healthy foliage or flowering plants it is well to propagate young plants, as most species are best if increased annually by cuttings or by seed. In many places large plants are required, but these when they grow old or stunted should be replaced by young plants. A propagating frame with a command of bottom heat is required, and it is surprising how small a frame will be able to supply the wants of even a large place. Although most cuttings when placed in the frame require some shade on bright days till rooted, yet I am afraid we often shade too much. This weakening of the plant for want of light is often one of the causes of damping off. The frame should get a little ventilation every morning, but care should be taken to close it before the cuttings get very much flagged. Neglect to open the frame each morning is another cause of the damping off of cuttings. In watering use great care, never letting the pots get quite dry, and, again, do not over-water, as nothing is more favourable to the cuttings "damping."

In making cuttings, plants with hollow stems or much pith should be cut close underneath a joint, or better still, especially for hard-wooded plants, take them with a heel of old wood when you will find that they strike root freely. With a few exceptions it is best that all cuttings should be kept fresh and put into the frame as soon as possible. Any plants, as ficus, &c., that run their sap when cut, should have powdered charcoal or fine sand applied immediately to the wound, and the latter is also good for placing round the base of the cutting in the pot. Generally speaking, all cuttings that throw out roots up the stem should be sunk deeper in the pots than those that only root below a joint. Begonias, more particularly of the Rex type, and gloxinias are readily propagated from leaves, cutting through the main ribs of the leaf and placing the leaves on fine sand on a shelf in the stove in shade, the sand to be moist, or pegged down on sand or fibre in the propagating frame. Sand and peat, with a little loam, is a good compost for striking many plants. W. T.

## A Note on Planting of Fruit Trees.

THE selection of a suitable soil is of primary importance. Unless the soil is right in character no amount of tillage or manuring afterwards will enable it to grow full crops of good fruit. The right soil for fruit is a soil more or less resembling a good wheat or mangold soil. Heavy clays and very light or thin soils are unsuitable. Good drainage is most essential for apples, plums, or gooseberries. If water collects in a hole dug three feet deep in the soil, the land requires drainage so far as fruit trees are concerned. Black currants, however, will thrive in soils too wet for most fruit trees and bushes. As to soil condition, it is a good practice to plant after a manured crop, such as potatoes; if this is not done and the land exhausted the application of farmyard manure will be necessary. Fruit land requires the presence of lime. If naturally deficient in this ingredient it must be supplied either in the form of burnt lime or chalk. Before planting the trees the land must be suitably tilled to a depth of about eighteen inches so as to encourage drainage and increase the water-holding power of the soil. In a small plot, where the work is done with a spade, bastard trenching is recommended, as this will keep the bottom soil in its original position. If the site is not already sheltered it will be necessary to plant a shelter belt of quickly growing trees in the path of the prevalent winds. It will be well to have the belt of three ranks or rows, one of which should be an evergreen. The three trees may be Austrian pine (or *Cupressus Larvensiana*) on the outside, damsons on the inside, and Canadian poplar between.

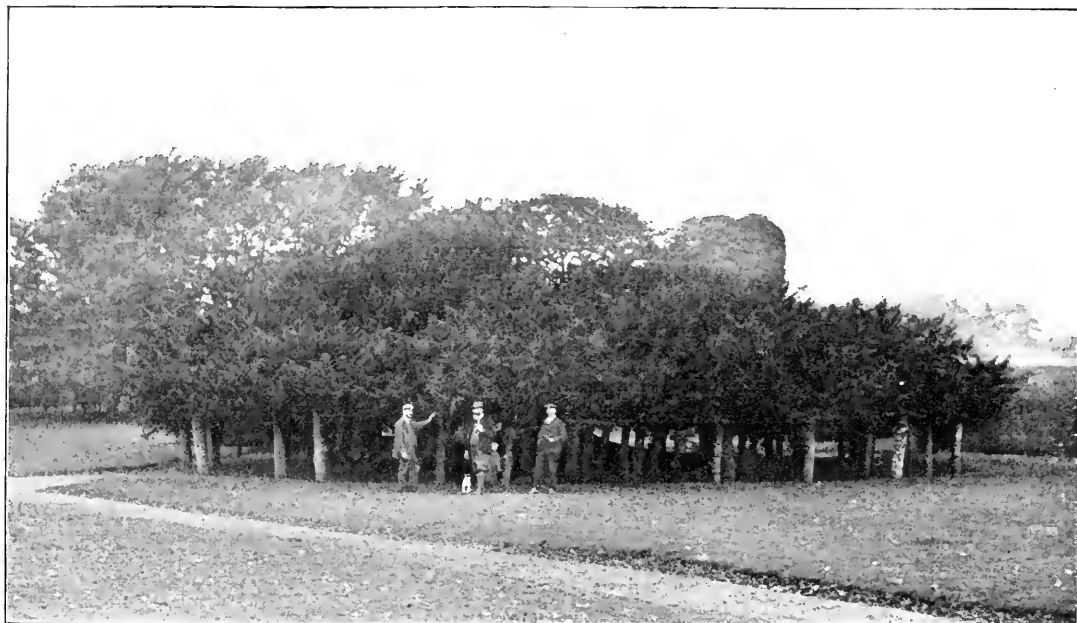


Photo by]

[T. Maguire.

OLD YEW TREE AT CROM CASTLE, CO. FERMANAGH.

Photographed October, 1902.

## The Old Yew at Crom Castle, Co. Fermanagh.

By PETER BROCK, Orchard Terrace, Enniskillen.

THE common yew *Taxus baccata* occupies a very prominent position among ancient and ornamental trees. Historically considered, it is the longest-lived of any of our native species, outrivalling even the oak in this respect, and as a decorative tree it is extremely effective in certain positions, its dark leaves and spreading habit of growth making a pleasing contrast in combination with other trees. It makes a slow growth, which tends to produce the hard, compact and elastic wood which was so highly prized in the days of the long-bow. In addition to being hard and elastic, it is exceedingly durable, so that it is said "a post of yew will outlast a post of iron." Before the introduction of gunpowder, the long-bow held the place of the firearms of to-day, and so important was it to have a supply of suitable material for bows that the cultivation of the yew was in those days made the subject of royal decrees. One of the letters of the Irish alphabet is derived from the yew, and numerous towns and places owe their names to it, the Gaelic name being *iubhar*, pronounced nearly like *ure*. Hence Uregare (short yew) in Limerick, Ballynure (the town of yews), Terenure (land of yews), Newry, &c.

The old yew at Crom Castle, the seat of the Earl of Erne, is reputed to be the finest, if not also the oldest, specimen of the trained yew in Ireland. It stands in a well-kept lawn near the ruins of the old castle, the building of which was commenced in 1611, and was burned down in 1764. The roots form a mound 20 feet in diameter and 4 feet high; the stem is only 2 feet high, and has a girth of 12 feet 6 inches at one foot from the ground. The height of the tree is 22 feet 6 inches, and diameter of spread of branches north to south 82 feet, east to west 71 feet, the circumference round extremity of branches is 243 feet. The branches near the top of the bole had in the youth of the tree been entwined into a sort of lovers' knot, and have long since become intergrafted (as shown in photograph) into a framework of great strength. The object of this training or pleating can only be conjectured, as none of the old records seem to refer to it, but it has certainly the effect of enormously strengthening the tree in its old age, and ensuring that the branches shall not cleft off under snowstorms or heavy gales. The strongest branches extend directly outward from the pleated part and rest on a trellising of poles supported by 76 oak posts averaging  $5\frac{1}{2}$  feet in height. Viewed from the eastern side it presents the appearance of an enormous green mushroom. It is said that parties of 200 or more have dined under the spread of its branches.

Unfortunately history has not recorded its

age, but it is known to have been regarded as a venerable old tree before the original castle was built. In the Earl of Erne's pamphlet, "An Account of Some Plantation Castles," is stated: "There is no authentic record as to its age, but I have heard a tradition that an O'Neill who was attainted in the reign of Queen Elizabeth took leave of his lady's love under the old yew tree at Crum." Undoubtedly it must have seen many centuries at that time. It is with a feeling akin to awe that one contemplates this magnificent old relic of the past, and ponders on all the dangers and vicissitudes it has witnessed in Ireland's eventful history. It was calmly putting forth leaves and shoots and berries when Cromwell's soldiers were devastating the country and flourishing during the "golden age" of the chieftains; it was growing when Brian Boru routed the Danes at Clontarf; probably, if it could speak, it could tell of the time when St. Patrick planted the first seeds of Christianity in the country; and who shall say that its history does not even extend to the tragedy on Calvary itself! Judging from the haleness and vitality of the tree it is good for centuries to come, and may see many more changes as sweeping and as violent as in the past, when everyone now living will be forgotten.

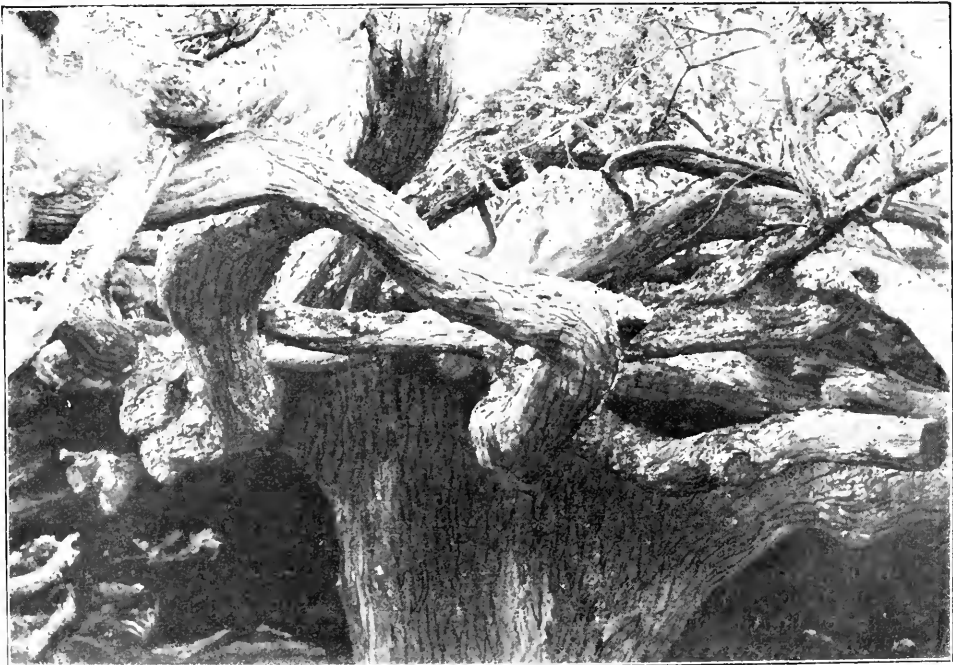
At the back of the yew in the first photograph is a much younger yew which has been trained in an arbour or bower shape, the pleating of

the branches having become long ago beautifully intergrafted, and it is generally considered even more interesting in this respect than its older neighbour. This pleating, by the way, is said not to have been practised later than the thirteenth century.

The demesne in which these grand old trees stand contains many magnificent specimens of other trees, notably oaks. It is open to the public on certain days in the week, a privilege largely availed of during summer by excursionists from all parts; but, to their shame be it said, many thoughtless and unscrupulous persons have scandalously abused this privilege by hacking and cutting initials and dates on the yew trees. Such wanton vandalism in return for the generosity of the owner, cannot be too strongly condemned.



**LIGHT IN RELATION TO ALPINE PLANTS.**—From a series of interesting experiments carried out by C. H. Shaw on the Selkirk Mountains (N. America), it would seem that the character of the light at high altitudes differs in intensity from that in the lowlands. The difference lies in the fact that the light in the former stations has a greater proportion of rays towards the blue end of the spectrum. The author grew in the lowlands certain plants under blue-violet rays in addition to the ordinary sunlight, and reports that the leaves were more hairy and the internodes shorter than under ordinary conditions. It is presumed, therefore, that light may be one of the factors influencing the special structure of Alpines.



*Photo by]*

*[T. Maguire.*

#### OLD YEW TREE AT CROM CASTLE.

Showing intergrafting branches near the bole. Photographed October, 1908.

## “IRISH GARDENING.”

AN ILLUSTRATED MONTHLY.

OFFICES—53 UPPER SACKVILLE STREET, DUBLIN.

**Publishing Date.**—First day of each month.

**Subscription.**—3/- per annum, post free.

**Editorial.**—All Editorial Communications, copy, and photographs should be addressed to “The Editor.”

**Business Communications.**—All letters regarding Subscriptions, Advertisements, and other business matters must be addressed to “The Manager.”

### Plants in Relation to their Environment.

By J. ADAMS, M.A.

IT has been said that “no man liveth to himself,” and the same thing certainly holds good with regard to plants. A plant is very largely what external influences make it, the action and interaction of these external forces being what is understood under the somewhat vague term environment.

As most garden plants are derived from wild varieties it is important to know under what conditions the original wild stock attains its best development, as success in its culture will, as a rule, depend on these conditions being imitated as far as possible in the field or garden. But it must be remembered that in a state of nature comparatively few plants find all the conditions best suited to their growth. The seed is scattered chiefly by animals or wind, and wherever it chances to fall it has to make the best of it. I have seen a red poppy in bloom on the point of a cottage gable, and one may sometimes meet with a blackberry growing on a peat bog or a stray specimen of red clover in a marsh. But a cultivated field is a much more suitable habitat for poppy and clover, just as a hedge, over which it may scramble, is for blackberry.

Under the term environment may be grouped the following factors :—

**Soil.**—Soils vary in physical characters from the shingle or sand on the seashore to fine, tough clay or peat. They may be shallow and rock-bound, as on hillsides and in glens, or deep, as in the valleys. The degree of slope also varies extremely, and this will, consequently, affect the drainage. Then soils vary much in their chemical composition, which depends to a certain extent on the nature of the underlying rock, although frequently there is no such relation. Some soils contain a large percentage of lime, while in other cases there is very little, the rock beneath being of a slaty nature. Some soils are the result of decomposed granite, while others, such as peat,

contain a large quantity of acid. The nature of the soil has, in many cases, an important bearing on the vegetation. One might drive for miles through Co. Wicklow, where the soil contains little lime, and not see a solitary orchid, unless, perchance, a stray specimen of *Orchis maculata*, while on the shore of Lough Ree, where limestone predominates, I have collected ten species in a short walk. Foxglove and bilberry avoid the limestone, while Carline Thistle and Marjoram are seldom found off it. Salt has a marked influence on plant life. Many species, such as Sea Aster and Sea Beet, are characteristic of the sea-coast, not being found inland. Seakale will grow better on the addition of a little salt to the soil.

**Moisture.**—This will vary with the rainfall of the district, and will increase with the elevation. It will also be much greater in the case of a clay soil or of a peat bog. The vegetation will vary accordingly. One would look in vain for Marsh Marigold and Yellow Flag on the sandhills of the coast.

**Evaporation.**—This will vary in inverse proportion to the rainfall. It will also be much greater on an open wind-swept hill than it would be in the shelter of a wood.

**Temperature.**—The limits of temperature are most important for plant growth. We cannot grow cactuses or palms with much success in the open in this climate; nor can we expect Alpine plants to be quite so happy when grown down in the valley, as they would be under more rigorous conditions where they are liable to be enveloped in mists for days at a time, and are much more exposed to cooling at night. The injurious effect of late frosts on early-flowering plants is well known.

**Sunshine.**—Some plants, such as the stonecrop, delight in the strongest light obtainable; others, such as many species of ferns, wood anemone, wild hyacinth, &c., prefer to have the light subdued by the friendly shelter of a canopy of trees.

**Wind.**—This has a marked effect on the vegetation, especially of mountains. The velocity of the wind increases with the altitude, and consequently an upper limit is reached beyond which the growth of trees and shrubs ceases. Other lowland species may be found, but they are of dwarf stature, and seldom flower. For example, bilberry occurs on the summit of Lugnaquilla, but is only a few inches high, whereas in some of the woods lower down it may reach the height of two feet or more.

**Animals.**—We all know the ravages wrought by snails, caterpillars, green fly, &c., in sheltered town gardens, where the conditions for the multiplication of these pests are also favourable.

**Other Plants.**—Some plants are adapted to



grow erect, while others are too weak to do so, and either creep over the surface of the ground or climb up other plants in various ways or scramble over the top of them. Likewise, in too sheltered situations, where there is feeble circulation of the air, parasitic fungi are apt to cause damage. Larch, for example, is more liable to succumb to canker when grown in the valley than when it is grown on a mountain slope. Reference might also be made to the injurious effects of grass growing round the trees in an apple orchard.

It will be evident from the above how varied and complex are the conditions which make up the term environment, as they are all acting at the same time on the plant, and how much a gardener's work is simplified when he knows exactly under what conditions a plant attains its best development when growing in a state of nature.



**BLACK SCAB ON POTATOES.**—This disease has been found at two spots in the County Down, one being at Kilkeel, on the south coast, and the other at the southern end of the Ard peninsula. Owing to the prompt action of the Department of Agriculture the diseased tubers were immediately destroyed and precautions taken to prevent the recurrence of the disease in the affected area. We cannot too strongly impress upon gardeners and others the importance in the public interest of keeping a vigilant look out for this disease, and if discovered giving immediate notice to the proper authorities. We again remind our readers of its virulent character and what it would mean to Ireland if the disease spread and became epidemic. Illustrations by which the diseased tubers may be easily identified were given in our last issue.

A SERIES of exceptionally clever and suggestive articles on gardening subjects that recently appeared in the *Times* (English) newspaper has just been published in book form under the title "Studies in Gardening." Quite apart from the high technical value of these articles they possess a literary charm that is quite delightful. There is no better shilling's worth in the whole range of gardening literature.

A BOOK that ought to be of much interest to our readers, entitled "Roses and Rose Growing," by Miss Rose G. Kingsley, author of "Eversley Gardens," will be published immediately by Messrs. Whittaker and Co. The book will be illustrated with 28 coloured plates from nature, and will be published, we are told, at a price that will bring it within the reach of all amateur gardeners. We hope to have the opportunity of reviewing it later on in our pages.

WE congratulate the secretary and committee of the Clare Horticultural Society on the solid progress they have made in the county during the past season. Their success demonstrates very clearly what a local society may do by organisation, enthusiasm and hard work. As was reported at the annual meeting last month the total number of exhibits at their recent show was 466. We are pleased to know that the results of the "School Competition" give promise of future development—about 600 packets of seeds having been distributed by the society. But why are there only twelve schools in the whole county of Clare that have taken advantage of the society's offer? Does the lack of interest lie with the children or with the teachers?

WE are pleased to hear that Mr. W. Baylor Hartland is making an effort to collect all the old "native" apples of Ireland. Many of the sorts that used to be the joy of our boyhoods have all but disappeared from our gardens. We well remember an old "Eve apple" tree with its load of delicious little fruit that ripened with the corn in the early weeks of August, but which we have not seen for the last 20 years. Mr. Hartland has succeeded in securing many of the favourite varieties well known to him as a lad 70 years ago, as well as several kinds that were popular in this country 150 or 200 years ago. He has 22 such varieties already available for distribution. They are listed and described in his new fruit catalogue.

THE Dublin Seed and Nursery Employees' Association held an interesting function on the evening of 19th November last at the Gresham Hotel under the presidency of D. Macleod, Esq. The main purpose of the meeting was to afford its members and friends an opportunity of viewing the exhibits collected, prepared, and displayed by its more strenuous members, either in connection with its educational competitions or specially for this particular exhibition. The exhibits were deserving of the very highest praise, and being of a permanent character (dried plants, &c., of agricultural and horticultural value) it seemed a pity that such an educational collection could only be on display for three short hours. We hope that the president, whose keen interest in the educational work of the association is well known, will make a serious attempt to secure a permanent home for exhibits that would form such a valuable beginning towards the building up of a most useful reference collection available at all times to the more studious members of the association.

**THE PART PLAYED BY MINERAL MATTER IN PLANT NUTRITION.**—According to numerous experiments carried out by N. T. Deleano with oat plants, it appears that under certain conditions during the life of the plant a double movement of mineral matter takes place, one from the soil into the plant and another from the plant back again into the soil. The author explains that while the nitrogenous organic matter (protein) and carbohydrates (starch, &c.) are stored up in the plant the mineral substances, not being really assimilated, begin to diffuse out from the root once the cells lose their vitality. This "negative" diffusion sets in when the water content of the plant diminishes, which in the experimental oat plants took place after the forty-third day.

**RESPIRATION OF APPLES DURING STORAGE.**—It is well known that the usual changes that take place in stored apples are due to a process of oxidation, accompanied by a liberation of carbon dioxide ("carbonic acid") gas. Mr. F. W. Morse, of the New Hampshire Agricultural Station, has been carrying on an extensive series of experiments with the object of ascertaining the rate of change (using the amount of carbon dioxide given off as an index) in apples kept at freezing temperature, 32° F. (cold storage), 40° to 50° F. ("cellar" temperature), and 68° to 80° F. (warm summer temperature) respectively. The conclusions deduced from his experiments are, that the chemical changes taking place within the fruits are at summer temperature four or five times and at cellar temperature from two to three times as fast as at cold storage temperature. If, therefore, for any reason it is required to keep apples through a longer period than used, they ought to be cooled down immediately after picking, and afterwards kept as cool as possible.

**MILDEW OF GRAPES.**—A new fungicide for the treatment of this fungal disease is reported. It is made by mixing copper and sulphur and adding formaldehyde, and is said to be easy of application and very efficient in the control of powdery and downy mildew.

## The General Culture of Tropical Plants.

By J. A. CAVANAGH, The Gardens, Portrane.

TO attain even a moderate degree of perfection in the cultivation of tropical plants one must give close attention to certain underlying principles of culture. For example, we must observe a careful nicety in potting and shifting in the proper season, regularity in watering, and with due regard to the plant's period of growth and to the conditions of the weather. We must have a knowledge of the temperature necessary for each subject, and give a steady attention to the cleanliness and habits of the plants in general. The operation of shifting or refreshing the roots of plants with earth properly prepared for that purpose, by transplanting them into larger pots than they before occupied, is one of the most essential operations to assure a healthy growing state. The quantity of earth contained in a plant-pot being, in comparison, so small to that which is requisite for the support of the generality of plants growing under natural conditions, it must be supposed that, unless it is changed or augmented in due season, the plants will soon exhaust all the available food at the disposal of the roots. The effect of this upon the more tender subjects, especially if accompanied by insufficient drainage, will be ill-health and liability to disease, while to the stronger growing specimens it means partial starvation followed by poor growth and unsightly plants.

The season most suitable for shifting hot-house plants, especially those of a woody character (to which our remarks are intended), is just as they are becoming active or starting new growth in spring time. The bulk of these plants will be found ready for this treatment in March. If taken in hand before that time the greater part of the collection will be found dormant or nearly so, though there are instances of plants being in growth for the greater part of the year. If shifting is performed while certain plants are inactive, they will not have sufficient power to establish themselves in the fresh earth to prevent the loss of leaves; and, on the other hand, if done when growth is far advanced, it will require infinite care and increase of labour to keep the proper balance between the loss of water by the leaves and the gain of water by the disturbed roots, so that in this case, too, the foliage is likely to suffer. But if the plants be taken soon after starting the new season's growth, the root fibres are then active and, given the necessary warmth, will soon push their way into the fresh mould, and by the time the young shoots lengthen and expose their foliage the root system will be extensive enough to cope with the supply of water required by the young leaves.

*Operation of Shifting.*—Being fully prepared with all the requisites, thoroughly cleaned and well drained pots, also suitable composts ready for the various species, let a part of the plants be taken to the potting shed or place assigned for the work, or, better still, a temporary bench erected in the stove or plant house. This latter precaution will obviate any risks from exposure which plants may be expected to get when carried out of a high temperature. In transferring the plants the greatest nicety should be used, because if the roots, from a multiplicity of wounds (which are more frequently lacerated than cleanly cut), once become "caulked" or decayed it is only reasonable to expect that the branches will suffer in proportion.

An erroneous practice followed by the uninitiated is that of paring off the best part of the roots with a knife—that is, the roots outside the ball of earth—in other words, the tips or fibres which are undoubtedly the feeders or active agents in supplying the plant with food.

Though this method may not seem to injure some few kinds of strong free-growing plants, yet it can never be allowed as a proper mode of treatment for all plants indiscriminately. There are instances, however, wherein the use of a knife is necessary to the roots as well as to the branches—viz., when they become injured or in cases where we use either the root or suckers for purposes of propagation. In all such cases as these the roots should be taken off with precision, and a sufficiency of roots left to support the parent, if considered worth preserving.

In turning the plant carefully out of the pot observe if the roots have perforated it in any part so as to render it impossible to part them without breaking the one or lacerating the other, in which case prefer the former as causing the slightest damage. When the ball of roots has been divested of its pot, let the broken tiles, or whatever material has been used for drainage, be carefully picked out without injuring the roots which may have mingled amongst them; also any caked, sour or mossy substance on the surface. Then proceed to loosen the old worn-out soil, and at the same time disentangle the matted roots. If the soil is dry this is best done by gently tapping the ball with the hand, or otherwise pressing it so as to open the interior without cracking the root; then shake off all the loose earth, and have a proper sized pot prepared—that is, well drained and some of the coarsest compost made firm in the bottom—and sufficient of the soil put in so that when the plant when finished will have some fresh earth over the surface roots, and allowances made which will permit of adequate watering space between the base of the stem and rim of pot.

When the operation of shifting is complete, some of the more tender species may require to be plunged to half the depth of the pot in the warmest pit and the remainder arranged neatly on the benches or staging. These latter should be thoroughly cleaned before re-arrangement, as the staging very often offers a hiding place for pestiferous insects which infest this department. A pretty brisk fire heat may now be kept up until the plants recover from their inactive state, the unavoidable consequences of having their roots so recently disturbed. They will be much benefited at this period by a moderate use of the hand syringe in the mornings and evenings, when the sun does not act upon them with force; also by raising a strong steam or moist atmosphere by throwing water on the warm flues or pipes. When the plants are freely treated in this manner they require but little from the watering pot, as over-watering is very pernicious to plants in general, and at no time is it more particularly so than when they have been lately potted. It is not, of course, the over-abundance of water that is harmful, but that the roots are deprived of air, the water filling up the soil spaces that ought naturally to be filled with air. However, watering must unavoidably depend on the judgment of the person who undertakes the culture of tender exotic plants.

Little more attention will now be necessary for a few weeks beyond watering when necessary, syringing, steaming, and keeping up the requisite degree of heat; this should be about 65 degrees. If kept much lower it will considerably retard the plants in recovering their vigour, and if allowed to gain a very high temperature the free-growing kinds will be apt to become top heavy, which will materially injure the more weak and tardy growing sorts, besides the plants themselves will become unsightly consequent on being drawn or unduly forced into long, weak, and ungainly stems.



"FLOWERS are thoughts of the Spirit of God,  
Their love is love of His grace,  
Their fragrance is breath of divinity,  
Their beauty the light of His face." —Hodge.

## Notes from Glasnevin.

**POLYGONUM AMPLEXICAULE** ? **OXYPHYLLUM**.—Except for our ordinary stand-by autumn flowering plants, among them the helianthums, Michaelmas daisies, and autumn chrysanthemums, we have very little to brighten our borders during October, but the above plant is an exception, and flowers freely. Unlike many members of this genus, it does not "ramp," and is a plant that can be grown without fear in any garden. It has several good points to recommend it. It is hardy, it is a perennial, it flowers freely, it lasts well in water,

suitable for rock work, the front of borders or shrub beries. A sunny position in light soil suits it best.

*Propagation*.—Divide the roots after flowering or in the spring.

**ESCALLONIA MONTEVIDENSIS** (see note, Nov., 1907, IRISH GARDENING).—This shrub flowered well this year on a wall at Glasnevin, and the trusses of white flowers were exceptionally fine. They opened well and remained in flower a whole month.

**EARLY SINGLE CHRYSANTHEMUMS**.—Within recent years the improvement made in these hardy chrysanthemums has been very marked, but the raising of the single varieties appealed to people more than the



Photo by]

[P. M. Pollock.

**ESCALLONIA MONTEVIDENSIS.**

Photographed late in October from a specimen grown in Botanic Gardens, Glasnevin. The flowers are pure white, small, and produced in loose terminal corymbis. The foliage is especially remarkable for its rich green colour.

and is easily propagated. The flowers are small, pure white, and are borne in graceful plumes on stems from two to two and a half feet high, and are sweetly scented.

*Propagation*.—After flowering cut the plant back; sturdy young shoots will then come away, which, when cut off low, will root easily, and form nice flowering plants the following autumn. Divisions can also be made of the roots after flowering.

**PLUMBAGO LARPENTÆ**.—True blue flowers appeal to most gardeners, and *Plumbago larpentæ*, now known as *Ceratostigma plumbaginoides*, deserves a place in every garden. This plant is a native of China, and commonly known as "Leadwort." It is perfectly hardy in our climate, and in September and October is covered with close trusses of beautiful blue flowers, which continue flowering until frost nips them. It seldom reaches a height of one foot, and has a tidy, compact growth, very

others. These singles are an entirely new race of chrysanthemums, and were brought out by Wells & Co., of Merstham. We all know, and where we have space we grow, and without doubt we welcomed the singles for our greenhouses, Purity, Edith Pagram, Earlswood Beauty, &c., but we now welcome still more what Messrs. Wells offer, in good strong varieties for our borders, which we can depend on for bright and showy flowers from October until cut by frost. These chrysanthemums can be easily propagated by cuttings put in in the autumn in pots in a cold frame, and will make nice flowering plants for the following October. They will do well in any good, deeply cultivated and manured soil, but watering, if the season be dry, should be carefully attended to. The following are a few good varieties, but many more might be added:—"Charming," rosy pink; "Lily Ovenden," white; "Brightness," yellow; "Carrie Luxford," terra cotta; "Florence Gillham," white. R. M. POLLOCK.

## Current Topics.

By PETER BROCK, Orchard Terrace, Enniskillen.

THE chief subject of interest lately has been the Ulster Horticultural Society's Show, held in St. George's Market, Belfast, on the 10th and 11th November. This annual exhibition of flowers, fruit, vegetables, farm produce, butter, and (this year) honey has great educational attractions for anyone interested in any particular section of the exhibits. The practical and business-like way in which the executive conduct this show for the advancement of horticulture in Ireland does them great credit. The uniform progress of the society is a standing testimony to their efficiency. There is always sufficient variation in the arrangements of one show from another to maintain the interests of visitors from far and near, so that no matter what the conditions of the weather may be this fixture is always well patronised by the public. One can sometimes learn as much regarding the character of new varieties, &c., in a few hours at a show like this as it might take years to do at home. Meeting old friends and acquaintances and discussing various subjects in connection with the exhibits is a source of real recreation to gardeners and fruit-growers, and stimulates their energies to improve and excel in the cultivation of some particular subject.

It appears, however, that greater mutual benefits might be availed of at such a gathering of practical horticulturists as annually meets in Belfast. There are so many subjects affecting the interests of gardeners and fruit-growers, such as dealing with fungoid and insect pests, varieties of fruit best suited to different soils, systems of cultivation and pruning, methods of packing and marketing, that it would be beneficial to hold a conference comprised of those interested in the improvement of fruit culture. Such conferences as have already been held have to a certain extent failed, owing, I think, to being controlled by too much of the scientific and theoretical problems which appeared to be beyond the reach of the average practitioner taking part in the debates. It appears that for the same reason the conference on spraying, which took place at Westminster on the 15th and 16th October, was a failure in advancing our knowledge in these matters. We read of the efficiency of so many spraying mixtures nowadays that practitioners should watch closely the results obtained with the different formulas. There being no State-aided experiment stations such as are in America, growers must learn for themselves which is the most efficient.

I can fully corroborate Mr. Seabrook's statements at page 180 in last month's IRISH GARDENING regarding the prevalence of apple sucker (*Psylla mali*, this autumn. Old apple trees which have been frequently winter-sprayed and are now as clean in the bark as maidens may be found dotted over with eggs. The wild crab is also badly infested in many places. The remedy described by Mr. Seabrook is the only one which has given complete satisfaction here in dealing with this pest. In several cases where an attack of winter moth caterpillar was anticipated last spring, 1 lb. of Swift's arsenate of lead was added to 40 gallons of the quassia mixture for the first spraying, and increased to 1¼ lbs. for the second spraying, before the blossoms opened. The caterpillars or psylla gave no trouble, and gradually disappeared.

**TREE MALLOWS.**—The Lavateras make a fine show of flower in the summer. The common tree mallow (*L. arborea*) is a perennial, and may be found in a wild state in the west of Ireland near the coast. The annual species (*L. trimestris*) is grown from seeds, and is one of our most beautiful garden flowers.

## Royal Horticultural Society of Ireland.

IT is gratifying to note that the spring flower show, 1909, will be held in conjunction with the Royal Dublin Society's spring show at Ballsbridge about April 21st. It should, perhaps, be termed contemporaneously, as the Royal Horticultural Society will be allowed the use of the Arts Industries Hall, and as far as conjunction is concerned that depends to some extent on the final arrangements which at the moment of writing are *sub judice*, but it may be added, *sub rosa*, that the committee of agriculture's recommendations to the Royal Dublin Society's Council will, if passed, place the Royal Horticultural Society of Ireland in a favourable position which cannot but result in an excellent show. Eleven members were present at the council meeting on Nov. 12th, Mr. G. M. Ross presiding. Interest was given to the proceedings by the reading of a letter from Mr. C. M. Doyne anent admission of ladies to the executive, and Mr. Doyne, being present, so lucidly expressed further views on the matter as to leave the discussion which followed quite one-sided, all being in accord with his proposition. As there is neither rule nor by-law to prevent such being *un fait accompli*, added to which there are two vacancies on the council, there is every possibility of the new departure not only taking place but being welcomed by all concerned. Fourteen new members were elected—viz., Miss Pratt, The Red House, Ardee; Mrs. Jas. Rorke, St. Grellans, Monkstown; Mr. Jas. Shiel, Yeovil, Terenure; The Rev. J. C. Creed, Moygaddy, Maynooth; Mr. A. W. Panton, Greenmount, Howth; and as practical members Messrs. J. H. Cumming, J. K. Robertson, W. Sinclair, T. Byrne, J. O'Kelly, W. Winstanley, W. Walker, A. Campbell, and L. Childs. This accession of new members of late is good as far as it has gone, but it has to go farther, for really there is no valid reason why the Royal Horticultural Society of Ireland should not be a thousand strong, and it is hoped that things will be pushed until that point is reached, and even then, considering the number of keenly interested amateurs and garden lovers in the Green Isle it need not stay at that. Mr. T. Smith, of Newry, sent amongst other things *Pyrus arbutifolius* "Brilliant," very beautiful in its autumn tints, and an improved variety of *Coloucastr frigidula* named Montana, very much more profusely berried than the type. From Miss Ross, Dalkey, came some nice bunches of outdoor chrysanthemums with sprays of myrtle still in full bloom, the latter being cut from a fine old bush some ten feet high, growing in the open, and quite guiltless of any shelter or protection in the way of a wall or anything else. A vote of thanks was accorded to the contributors. The retiring members of the council, and of which notice with particulars has been posted to all members of the society, are Messrs. George Watson, Jas. McDonough, J. Wylie-Henderson, Rev. Canon Hayes, Edmund D'Olier, and Hugh Crawford, with, as remarked, two vacancies. Respecting the latter, will it be *Place aux dames?* *Nous verrons.* E. KNOWLDIN.

**DAMPING OFF IN CONIFEROUS SEEDLINGS.**—Experiments on the effects of several kinds of chemical substances upon the fungus causing this disease has been carried on by the Bureau of Plant Industry Department of Agriculture, U. S. A. So far the best results have been obtained with a dilute solution of sulphuric acid (or vitrol). The soil was thoroughly drenched with a solution of one ounce of the acid to one gallon of water several days before the seeds were sown, and the treatment repeated about a week after the seedlings came up. Of the several species tried, the Norway spruce alone showed ill-effects from the treatment; a weaker solution, therefore (1 part acid to 500 of water) is recommended rather than the stronger one used in the series of experiments.



## December. The Month's Work.

### The Flower Garden.

By J. G. TONER, Horticultural Instructor, Co. Monaghan.

**CHRYSANTHEMUMS.**—By this period the bloom of the bulk of the chrysanthemums will be over, and the usefulness of the later batch will be apparent. Sometimes this phase of their culture does not receive sufficient attention, but if an oversight of this nature occurs one season it is easily remedied in the succeeding year. The time has arrived again for taking cuttings, and if large blooms are required no time should be lost. It is not always easy to obtain really good cuttings. Sometimes it is the fault of the variety, and again it can be traced to the fact of the plants when housed being placed too close together, the consequence being that the young shoots are very weak and quite unfit to make really good plants. The best cuttings are those that push through the soil. Stem cuttings should be avoided. Make them about three inches long, and dibble in either singly or several in light sandy soil in say, three inch pots; water gently, and place in frame or boxes covered with glass, and keep close for some time. A slight warmth will induce quick rooting, but a little will go a long way.

Such subjects as early cinerarias, primulas, cyclamens, and Roman hyacinths will now be making the dull days brighter, and considerable skill will be required to keep the bloom in good condition as long as possible, a comfortable temperature combined with judicious ventilation being always necessary.

Much cooler conditions will suit show pelargoniums and calceolarias. These will do well in cool houses. If growing in pits or frames, materials must always be at hand to afford protection from frost. Genistas, azaleas, and arum lilies may be brought on gently now in slight heat. If they have been well treated during summer they will pay for all the trouble.

Examine all potted bulbs that were plunged to make their early growth, and remove the more forward. Work of this nature requires constant attention, because when a mixed lot is in course of treatment many varieties will be fit for removal before others.

Calculate as nicely as possible the matter of succession. It is very gratifying to have a fresh batch coming in bloom just as the preceding one is on the wane.

At this season it is useful to look back on the past year's work and think out improved plans for the future. Soils for potting may be prepared, pots washed, boxes made; they are always handy and useful for pricking out seedlings. These and many other preparations can be made in view of the busy spring and summer work.

Out-door work will consist of planting, pruning, and training climbers. Lawns, tennis-grounds, &c. may require attention, bare spots re-turfed, levelling up where necessary; grass edgings may be improved by the use of the iron.

While the weather remains open and the soil in good condition the planting of evergreen and deciduous shrubs may be proceeded with.

Alterations in herbaceous beds or borders, too, may be made subject to the same conditions.

On the principle that it is better late than never, bulbs may still be planted, but their silent and unmistakable protest in the way of growth already made will convince the forgetful or careless that such work should have been attended to long since.

### The Fruit Garden.

By GEORGE DOOLAN, Instructor in Fruit Culture, Department of Agriculture.

**DURING** this dull month, when the days are short and the atmosphere damp and chilly, pruning will occupy most of the fruit-grower's time. Little else can be done unless the weather be dry; then, if the soil be in a workable condition, much of the work recommended for last month may be carried out, but if the soil is not in a fit state better defer planting until February or early March. Where such planting is contemplated now is a good time to prepare the soil, either by digging deeply or ploughing, if a lot of planting has to be done. Road-scraping should also be collected and mixed with old decayed manure; this will be a useful addition to the soil placed about the roots of newly planted trees. Now is a good time to prune and regulate wall fruit trees, and no grower should omit to see that his bush trees are firm in the ground, for at this time of the year they suffer when not properly tied or staked. Press the soil firmly about the stem of the tree with the foot.

**PRUNING OLD ORCHARD TREES.**—Many old trees have been allowed to run on for years without any attention in the matter of pruning; spraying and mulching may also be added. Now, such trees, unless they are fairly good bearers, are hardly worth taking in hand, but if they bear well they are worthy of better treatment. The fruit from such trees is usually small and poor in quality. It can be vastly improved if the trees are judiciously pruned and the top surface removed, and a mulch of good manure placed over the roots. This work may be done now or next month. The pruning consists in thinning the branches where they are too thick. It is advisable not to cut too severely, but to continue this thinning over several years in preference to pruning all that may be necessary in one season. Old trees that have not been pruned for years often receive a check which they may take years to get over, hence the saw or knife must be used sparingly in such cases. Spraying to kill moss and lichen is most important, but this subject will be dealt with later.

**FRUIT HOUSE.**—Examine stored fruit, and remove any showing signs of decay. This will prevent the disease spreading to sound specimens. To keep fruit in perfection for a long period a cool, uniform temperature in the fruit room is essential.

**CANKER AND AMERICAN BLIGHT.**—These are often referred to, but not too often, as two worse pests it would be difficult to conceive. They are to be seen almost everywhere fruit trees are grown, and doing a lot of injury to the apple especially. Young trees should be

examined twice a year at least, and any signs of canker be cut out; afterwards apply a mixture of lime and cow-manure to the wound. Canker is often caused by branches being carelessly broken or bark injured by animals. American blight can be detected at the same time, the white, cottony substance indicating its presence. Pure paraffin oil should be used to destroy the aphids, painting it on with an old paint brush.

**GENERAL REMARKS.**—Collect all prunings of currants, gooseberries, apples, &c., and get them burnt. Weeds and rubbish of every sort should be similarly disposed of, and the ashes spread as a top dressing around some of the productive trees. Where bullfinches are giving trouble, shake a mixture of soot and lime over the gooseberry bushes; this will make the buds, which these birds are so fond of, distasteful. It is a great advantage to apply the mixture when the bushes are wet, or at least pretty damp. At this time of the year liquid manure is plentiful, and often allowed to waste. Such manure, if given to black currants, old bearing trees, gooseberries, and even old strawberries, will repay the trouble. I have seen old raspberry canes greatly improved by winter applications of liquid manure. The very best time to apply it is after rain. At other times, if the liquid is strong, it should be diluted with water.

## The Vegetable Garden.

By WILLIAM TYNDALL, Instructor in Horticulture,  
Co. Kildare.

**THIS**, so far as the calendar goes, is the end of the year, and the chief work in the garden is trenching, turning over rubbish heaps, and burning prunings and other refuse. Ashes in most gardens are good for the crops; on heavy soils they are very valuable, and should be spread over the surface and pointed in after the ground has been prepared for cropping.

Get any work in the way of alterations finished as soon as possible. As leaves have now finished falling have them all gathered so that the garden may have a tidy appearance.

Towards the end of the month some kinds of seeds can be sown under glass either in boxes, such as cauliflower, tomato, and Ailsa Craig or Cranston Excelsior onions for exhibition, or on a hot-bed, as in the case of carrots, radishes and lettuce.

Seed catalogues will now be coming in and will require careful examination during the winter evenings. Lists should be made out of good standard kinds that you know to be reliable, and also any varieties you may have made a note of during the past season as improvements on those previously grown. But unless you have actually seen "novelties" growing add them with great caution to the list, as very often they prove no better than the old varieties they replace, even if as good. On account of the cold, wet September the germinating power of many seeds may not be so good as usual, so do not cut down the seed order, as failures in germination often occur. A reference to your pocket book (which all gardeners who wish to obtain success as cultivators should keep) will let you know if an increased supply of any particular vegetable is required, and order accordingly. This is the time to get a good supply of leaves gathered for mixing with manure later on for forcing. A supply of leaves, or, better still, leaves and manure combined, cannot be over-estimated, even where the forcing of vegetables is mostly done in pots heated by hot water. Prepare also suitable soils for potting; that from old cucumber and melon beds do well for most things.

**FORCED POTATOES.**—Too much care can scarcely be taken on the storing and preparation of potatoes for forcing, for on this largely depends whether the resulting crop will be satisfactory or not. If some sets are

required for forcing in pots or planting in heated pits place them singly in boxes in a warm house exposed to light, and keep moist. They will soon produce good, strong sprouts, and these should be reduced on each set to one, or at most two. The soil for planting them in may consist of two parts loam and one of old mushroom bed manure and decayed leaves. Good varieties for forcing are Puritan White, Ninetyfold, and Sharp's Victor, the former for a heavy crop and the latter for quality being hard to beat.

**SEAKALE.**—Very often the finest seakale is to be had by the old method of forcing the roots where they are grown, the crowns being covered (after the ground has been forked over and cleaned) by seakale pots, boxes, or screened ashes, cover with stable manure or manure and leaves, and be careful that the mixture does not get so hot as to injure the crowns. This is probably the easiest way for amateurs to get early dishes of this delicious vegetable.

**RHUBARB.**—Not very much heat is required in mild weather to start early kinds of rhubarb. If established crowns are covered with tubs, barrels, or boxes with lids and inverted, and a further covering of three or four feet of manure or manure and leaves added early, supplies may be obtained.

**CABBAGE AND SPINACH.**—It is very remarkable how much better these two vegetables stand severe weather when the ground is kept clean, the plants not grown thickly, and the soil well drained. Sow in the open plots in preference to sheltered borders under trees and the plants will be much hardier. During wet and snowy weather such work as making labels and stakes can be done under cover; also cleaning out and white-washing sheds—in fact anything that requires doing and can be done do, so that we may start the new year with no arrears of work.

## The Cottage Flower Garden.

By P. MAHON, Gardens, Killeen Castle, Dunsany.

**THE** past season has been a successful one to some cottagers, whilst, on the other hand, many may have met with disappointment, occasioned by failures of seeds, &c., perhaps by sowing too deeply or from many other causes. However, this is no reason to become disheartened, as experience of the past, whether attended with success or otherwise, should only serve as a valuable guide in securing the best results during the coming season.

By this time many cottagers will have their vacant borders furnished with spring-flowering subjects, such as tulips, narcissus, daffodils, wallflowers, myosotis, arabis, aubretia, &c. Window boxes may also be fitted with any of these. Acubas, veronicas, euonymus, &c., answer this purpose very well, during the winter months especially, where foliage plants are appreciated. Wall shrubs should receive attention by having a mulching of manure around their roots. In doing this care must be taken to prevent its coming in contact with the stem or trunk. All vacant ground should be ridged as soon as possible in order to get the full influence of the frosts. Where slugs and other pests are troublesome a dressing of soot, wood ashes, and lime will be of much service in exterminating these unwelcome visitors. Ground intended to be occupied by sweet pea should be deeply trenched, box edgings should be clipped, and all blanks made up. Remove all fallen leaves, and have all the surroundings looking clean and neat.



The most curious thing of all is that the people on this planet have not yet come to realise that their many sufferings arise mainly from their own ignorance.

—Hubbard.

## Bee-Keeping.

By T. MAGUIRE, The Orchard, Enniskillen.

### Extraction—I.

**D**URING the winter months bee-keepers make plans for the summer. I think one plan that many should turn their attention to this winter would be the production of extracted honey, either partially or altogether. It has several advantages over section honey—it is easier to work, is more economical. Once the extractor and the requisite number of frames are provided there is practically no further expense; the labour is less; swarming is more easily controlled; queens are more easily reared; more honey is produced; and last, but not least, the demand for extracted honey is much greater than for sections, and the price not so variable. True, sections generally fetch more per pound than extracted honey, but the greater quantity obtained of the latter—50 per cent. at least in normal years—more than makes up the difference, whilst the storage of sections during cold weather, if not sold early, is a very serious trouble with most people. Extracted honey can be tinned and marketed right off. Those, therefore, who have four or more hives to work, and particularly those who are at a distance from large marketing centres, would be well advised to start working for extracted honey.

Extracting can be worked either with the ordinary standard brood frames or with shallow frames, supers or doubling boxes being provided to take whichever size is selected. Any handy person can make a doubling box in an hour, and any well-seasoned wood will do. It is merely a brood-chamber without the second wall, a projection at the top providing space for the ears of the frame, which are kept in position by a slip at each side. Hoop iron answers admirably, and has the advantage of taking up so little space that the lift will fit comfortably round it. The space between the combs of the super and those of the brood-chamber may be half an inch in case of standard frames, but with shallow frames should not exceed a quarter inch, otherwise the combs will be braced to the excluder. The supers are made to take ten frames, and are usually occupied only by eight, the spaces between being fitted with pieces of cork or wood or some other device to prevent escape of bees. When the combs are thus widely spaced they are drawn out much more fully and filled more heavily, so that a greater amount of honey is realised from the same number of combs with less labour than with ordinary spacing. When very thick honey is expected drone combs are sometimes used with shallow frames, as they are rather more easily extracted. All combs should, of course, be properly wired, otherwise they will break under the strain of extracting.

Sections, if required, can be worked on top. Suppose a crate of sections is put on first, when the big flow comes the shallow frames are put beneath it, or if standard frames are used the stock is "doubled"—that is, the combs in the brood chamber are put in the super, whilst the spare combs or new frames of foundation are put in the brood chamber. If there are spare combs a choice can be made of those used in the super; none containing a quantity of pollen should be put above; the ideal combs for the super are those completely filled with sealed brood. The queen must be found and put below, and an excluder placed over the brood chamber to prevent her coming up again. Four or five days after doing this it is necessary to examine the combs of the super for queen cells; they are generally started when the queen is excluded below, and must be removed unless they are suitable and required for queen rearing, in which case they can be given to nuclei.

(To be continued.)

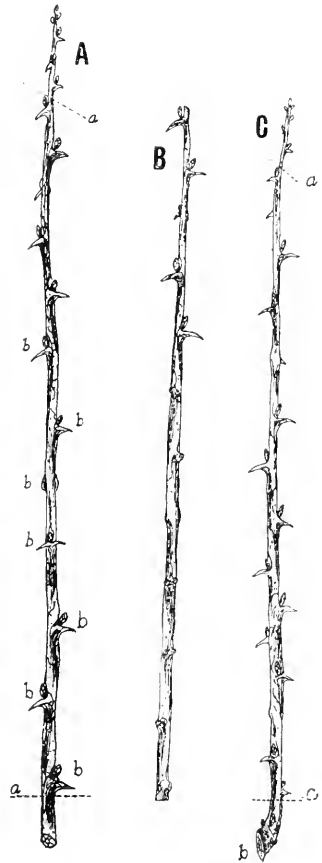
## Answers to Correspondents



**SIZE OF POTATO SETS** ("Northern Grower").—It is generally considered that the larger the "set" the more vigorous the resulting plant. The superiority does not apparently lie in the extra amount of food stored in the larger specimen. Experiments recently carried out at Cambridge demonstrate this. Small and large tubers were selected and the "flesh" scooped away, leaving an equal amount to each "eye." The "eyes" were first started under glass, and then planted out. In every case the yield obtained was in proportion to the size of the tubers used, the greatest being that from the largest specimens.

### PROPAGATING GOOSE-BERRIES ("Beginner").

—An illustrated article on this operation appeared in our issue of October, 1906. We reproduce three of the illustrations covering your particular question. *A* represents the young growth as cut from the bush, the lines *aa* indicating where the cuts should be made with a sharp knife, and *b* the buds or eyes which must be removed (five being allowed to remain on the upper portion). *B* is a cutting prepared and ready for insertion. In the case of a shoot taken off with a heel as shown in *C*, the heel (*b*) should be trimmed off at a joint, the tip removed at *a* and partially budded as in *b*.



### MULCHING STRAWBERRY BEDS ("Fruit Grower").

—Certainly. After the autumnal cultivation a mulch of strawy manure should be applied. From certain experiments carried on for a series of five years it was found that mulching in early winter gave every time a very considerable increase of yield over the unmulched plots. As a proof that the increase was the result of the strawy soil-covering rather than the manurial matter washed into the soil, it was found, first, that straw alone gives as good returns as strawy manure, and, second, that in another plot that received artificial fertilisers, but no mulch, the yield was no better than on the untreated control plot. It should be mentioned that these experiments were conducted in one of the North-Eastern States of America, where, perhaps, strawberries suffer more from lack of moisture



in the summer than they do here. Yet even here strawberries often fail to give a full crop owing to a low supply of soil moisture.

**SPROUTING POTATO TUBERS BEFORE PLANTING** ("J. P. O'B").—An illustrated article on this subject appeared in our issue of February, 1907, which please see. There is no doubt whatever that the yield of potatoes can be increased by the use of sprouted tubers. The actual increase seems to vary with the variety, being greatest in those that ripen latest in the season. There is also another advantage in using sprouted potatoes—more care is taken to preserve the sprouts. In potatoes stored in clumps, the first formed sprouts are often broken off in handling. Now, these first formed shoots are the most vigorous, and would produce an earlier and a bigger yield, and therefore the greatest care should be taken not to lose them.

**BONE-MEAL** ("X.").—Read "Artificial Manures" in Nos. 28 and 29. Bone-meal is a most useful fertiliser, as after undergoing decomposition in the soil, it supplies the plant with phosphorus and nitrogen. Good bone-meal should yield about twenty-three per cent. of phosphoric acid, and from four to six of nitrogen. Phosphates seem to play an important part in the young stages of growth of any organ, and are therefore essential to the full development of roots and buds. They are especially beneficial in the case of fruit buds and in the formation of seed. Most gardeners are familiar with the good effect produced in crops of plums, peaches, vines, &c., by working into the soil crushed or ground bones. The liberated phosphates help the plant through the exhaustive period of fruit formation. Of course if the need for phosphates is immediate, a soluble form of phosphate (that is, "a superphosphate") must be used; even bone-meal in the soil only gradually decomposes with liberation of available phosphates.

**ELECTRIC LIGHT ON PLANT GROWTH** ("A.B.C.").—The effect of electric light upon plants is a subject constantly cropping up in the newspapers. One effect of the electric light upon trees planted along the streets in towns is said to be that their leaves appear sooner and remain later than the leaves on the same kinds of trees not exposed to this light. It is also said that certain colour changes are induced under the same influence. In this connection it is well to remember that electric light is rich in the violet and ultra-violet rays of the

spectrum, and these, as is well known, are specially active in bringing about chemical changes.

## Correspondence.

### FARMYARD MANURE.

SIR,—In reference to Mr. Jamison's excellent article on farmyard manure in your issue of August, 1908, I would like to bring to your notice the economy and convenience of using the straw chopped in about two inch lengths. In the first place there is a great economy in the amount of straw necessary for absorbing the liquid portions of the manure; the short pieces of straw with their absorbent ends take up the moisture far more readily than the long pieces of uncut straw, with their more or less impervious surfaces. The chopped straw packs closer, and tends to minimise the heating; it is far more easily handled with a fork, and offers no difficulty as regards spreading and ploughing in. In ordinary stables, too, the use of chopped straw is most economical, as only the straw near the hind legs of the horse gets soiled, and this small portion only need be removed each day; the remainder is pushed back a little, and the new material is placed under the horse's head.

In dealing with intensive farming it is necessary to bear in mind that a good dose of farmyard manure will give beneficial results for a few years. Hence, all the manure made should be put on one-fourth or one-fifth of the arable land in rotation, rather than trying to spread it over the whole of the land each year. The organic matter left in the soil by the roots of the crops will greatly assist the continued action of the manure. If manure cannot be got in sufficient quantities, the necessary organic matter in the soil for producing good crops can be readily procured by growing a leguminous catch crop and ploughing in it. I have seen worn out lands quickly brought into good condition by the ploughing in of catch crops, even non-leguminous ones.

In conclusion, I would like to again insist on the principle of concentration of farmyard manure on successive portions of the arable land of a farm. This principle is as important to bear in mind as that of increasing the nitrogenous elements of manure and of heating them with care till required for use. The question of chopping the straw is one of economy and convenience in use.

MILES.

"AND in actual life, let me assure you, in conclusion, the first 'wisdom of calm' is to plan, and resolve to labour for the comfort and beauty of a home such as, if we could obtain it, we would quit no more. Not a compartment of a model lodging-house, not the number so-and-so of Paradise Row, but a cottage all of our own, with its little garden, its pleasant view, its surrounding fields, its neighbouring stream, its healthy air, and clean kitchen, parlour and bedrooms. Less than this no man should be content with for his nest; more than this few should seek; but if it seems to you impossible, or wildly imaginary, that such houses should ever be obtained for the greater part of the English people, again believe me, the obstacles which are in the way of our obtaining them are the things which it must be the main object now of all true science, true art, and true literature to overcome."

—*Ruskin.*

End of Third Volume

**BEE-KEEPING MADE PROFITABLE.**  
Every Bee-Keeper who desires success should read  
**THE IRISH BEE JOURNAL**

(Established 1901.)

*Official Organ of the Irish and Affiliated, Croydon and Perthshire B. K. Associations.*

**THE LARGEST PENNY BEE PAPER IN THE WORLD.**

Received with enthusiastic approval and congratulations at Home and Abroad

"One of the brightest in the world."—*Gleanings (American)*.  
"One of the liveliest and best Apian Journals in all Europe."—*American Bee-Keeper*.

Monthly 1d. ; 1s. 6d. per Annum, Post Free.

**THE IRISH BEE GUIDE.** By the Editor, "Irish Bee Journal." The best book on the subject yet published. 220 pages. 150 illustrations. Paper cover, 2s. ; postage, 3d. Linen cover, 3s. ; postage, 4d.  
From the office, IRISH BEE JOURNAL, Lough Rynn, Dromod, and of all newsagents.

**EVERY WEED DESTROYED**  
ON GARDEN PATHS, BY CARRIAGE DRIVES, &c.  
**"CLIMAX" WEED KILLER.**  
ONE APPLICATION IS SUFFICIENT FOR 12 MONTHS. IT KILLS THE WEEDS ROOT AND BRANCH.  
No. 1 tin, to dress 100 sq. yards, 2s. 3d. post free. No. 2 tin, to dress 400 sq. yards, 7s.  
Write for our Catalogue of Garden Helps.  
**BOUNDARY CHEMICAL CO. LTD. CRANMER ST. LIVERPOOL**

**"NICOTICIDE" Fumigant.**

Half-gallon Tin, containing sufficient for 160,000 cubic feet	80/-	} Carr. paid.
No. 1 size Tin—1 pint	40,000	
No. 2 size Tin—1 pint	20,000	
No. 3 size Bottle—6 oz.	12,000	
No. 4 size Bottle—4 oz.	8,000	
No. 5 size Bottle—1 oz. (sample)	2,000	10d.

**FUMIGATORS,**

1/- each, for 5,000 cubic feet.

**NICOTICIDE PLANT WASH For Outdoors.**

1/2 Pint, 1/2 ; Pint, 2/- ;  
Quart, 3/6 ; 1/2 Gallon, 5/- ;  
Gallon, 10/-

**GOW'S WINTER ALKALI TREE WASH** for destroying Woolly Aphis, Scales, Lichen Moss and Apple Busters, &c. Half-gallon, 2/6 ; Gallon, 6/- carriage paid. One gallon will make 20 gallons solution.

**HUNTER & COW, 46 Thomas Street, LIVERPOOL.**



Gow's Slug and Wire-worm Destroyer, Lawn Sand, Daisy Eradicator, Tobacco Powder and Quassia Extract. Sold in 6d., 1/-, also 2/6 Tins and larger sizes. INSIST ON YOUR SEEDSMAN SUPPLYING THEM.

**WE WANT BUYERS**

To send to Advertisers in IRISH GARDENING for such Seeds, Plants, &c., as they may require.

**WHAT IS ADVERTISED**

In IRISH GARDENING is worth buying.

**SEED CATALOGUES**

**"IRISH GARDENING"**  
is a Specimen of our Work



Estimates free on  
application to .

AND . .

**NURSERYMEN'S CATALOGUES**

Illustrated with Half-tone and Line Blocks, and printed in high-class style by the most  
**IMPROVED METHODS**

**FALCONER, Printer, 53 Up. Sackville St., DUBLIN**

When Planting

**Fruit or Forest Trees**  
**Ornamental Shrubs**  
**Thorn Quicks**  
**. Hedging Plants .**  
**&c., &c.**

Write . .

**WM. POWER & Co.**

---

---

**Nurserymen and  
Seedmerchants**

---

---

**WATERFORD**

OVER HALF-A-MILLION FOREST TREES were exported from  
Power's Nurseries last season to England, Scotland, and Wales

---

**BULB, NURSERY, AND GARDEN SEED CATALOGUES POST FREE**

## Miscellaneous Section.

**"XL ALL"** Vaporising Compounds and Insecticides (non-poisonous and poisonous). **"XL ALL"** Weed Killer and Fertilizer, New Green Sunshade, &c. **"XL ALL"** Specialities are used and sold by Nurserymen, Seedsmen and Florists all over the United Kingdom. Manufacturer will send Price List by return, and give address of nearest Agent. Poisonous preparations only sent direct when Agent cannot supply. Be sure you get the original inventions—**"XL ALL."**

G. H. RICHARDS,  
234 BOROUGH, LONDON, S.E.

### SEED POTATOES.

Support Irish Tillage Farming.

Early kinds for Boxing, Mid-Season and Late-keeping Varieties, at wholesale rates.

List on application to  
MANAGER, KILMARNOCK FARM,  
ARTHURSTOWN, CO. WEXFORD.

Kindly mention this paper.

## Salva-Fruta.

FOR SPRAYING FRUIT TREES IN WINTER.

All Fruit Trees should be treated with this preparation; it effectively  
destroys every vestige of  
MOSS, LICHEN, AND GREEN SLIME.  
as well as the eggs of  
MOTHS, APHIDES, RED SPIDER, &c.

Salva-Fruta is a Powder, and is easily dissolved in cold water. It is put up in canisters of 1lb., 2lb., 4lb., and 10lb. each.

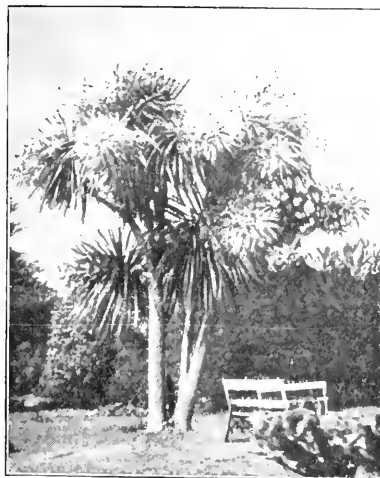
Full Directions and Prices can be obtained from the Manufacturers,

The United Alkali Co., Ltd.,  
GREENBANK WORKS,  
ST. HELENS, LANCASHIRE.

Or from all the principal Seedsmen in the United Kingdom.

## Pennick's Delgany Nurseries.

Specialite—Himalayan Rhododendrons



Flowering Shrubs, Fruit, Roses.

400 Feet Elevation.

**W**ALSH'S GIANT-FLOWERING SWEET PEAS. Cheapest offer in the Trade. All tested (unequalled). No. 1 Collection, containing 25 varieties, 1,250 Seeds, 1s., post free; No. 2 Collection, containing 25 varieties, 2,000 Seeds, 1s. 6d., post free. Catalogues free. JAS. WALSH, Seedsman, Portadown.

**T**HE JOYS OF GARDENING are realized by using "The Ashbourne" Garden Fertilizer. The most concentrated and Complete Manure for Horticultural purposes. One and a half times as powerful as the largely advertised Garden Fertilizers in commerce—therefore more economical. Prepared on the most up-to-date methods. Of general uniform quality, highest solubility, with constituents correctly balanced for promoting a healthy, vigorous plant growth—per stone, 2s. 6d.; per cwt., 14s. 6d. THE ASHBOURNE COMPANY, Nurserymen, Parliament Street, Dublin.

200 Highest Awards: Gold Medals from all the Principal Exhibitions.

### PURE ICHTHEMIC GUANO.

The Most Reliable, The Richest Food, and the Most Natural Fertiliser

Supplied in Tins and Bags, 6d. to 20. Carriage paid on quantities of 28-lbs. and upwards.

**FAME'S FERTILISER.**  
Swift, Safe, and Sure.

Supplied in Tins and Bags, 6d. to 20. Carriage paid on quantities of 28-lbs. and upwards.

May be obtained from the principal Nurserymen, Seedsmen, Florists and Chemists, or DIRECT OF—

The Sole Proprietors and Manufacturers,  
**WM. COLCHESTER & CO.,**  
IPSWICH, England.



# IRISH QUEEN.

The Best Potato ever  
Grown in Ireland . .

No Disease. No Chats. Superlative  
Cooking Quality.

See Reports from Farmers who have grown it,  
in my Catalogue. Post Free.

ONLY ONE PRICE.

Ask me or your local Seedsman for prices, &c.

The Trade invited to sell

## IRISH QUEEN.

All other varieties at low prices for reliable  
North of Ireland Seed.

**WESLEY FORBES,**  
**GILNAHIRK, KNOCK, BELFAST.**

THOMAS

**McKENZIE & SONS, LTD.,**

FOR

GARDEN SEEDS

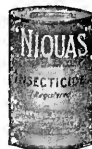
SEED POTATOES

GARDEN TOOLS

Descriptive Catalogues on application.

212 Great Brunswick Street,  
DUBLIN.

IMPORTANT TO  
GARDENERS  
and Fruit Growers.



# "Niquas"

(Registered).

The most successful Non-poisonous Insecticide  
of the day.

ITS ADVANTAGES ARE—

Certain death to all Insect Pests.  
No possible injury to the most delicate Plant, Flower or Foliage.  
It is by far the cheapest Insecticide known. One pint makes ten  
to twelve gallons for Thrip, Black and Green Fly, etc., whilst RED  
SPIDER, May Bug, and Scale can be thoroughly eradicated by  
using "NIQUAS," double or three times the strength required  
for Fly.

PRICES—Pint, 1/-; Quart, 1/9; Half-Gallon, 3/-; Gallon, 5/-;  
Kegs, each Five Gallons, 22/6; Ten Gallons, 42/6.

Ask for Testimonials, of which some hundreds have been  
received.

SPECIMEN TESTIMONIAL.

From Mr. E. HUBBARD, Gardener to G. Hanbury, Esq.,  
Blythwood, Burnham, Bucks, May 15th, 1906.

"I have been using your "NIQUAS" Insecticide for some  
years, and can with all confidence say it is the best I have ever  
used for Bug, Thrip, Red Spider, American Blight, and for all  
Insect Pests it has no equal. Also for the destruction of Maggots  
in Marguerites by dipping.

"I have recommended it to my friends generally."

# LETHORION

IMPROVED METAL



Registered Trade Mark.

## VAPOUR CONE

FOR FUMIGATING.

At Greatly Reduced Prices.

INTRODUCED 1885.

This well-known invention for the entire eradication of all pests  
infesting vegetation under glass is now manufactured in a more  
simple and reliable form. The small candle, which will be found  
packed with each cone, has only to be lighted, and placed on the  
ground in the centre of the Cone Frame, to produce immediate  
results. Nothing on the market can equal it for efficacy and  
cheapness.

Cone No. 3, for a well-secured house of cubic 2,000 to 2,500  
feet, 1/- each. Cone No. 2, for a well-secured house of cubic  
1,000 to 1,200 feet, 8d. each. Cone No. 1, Carbon, for frames of  
cubic 100 feet, 6d. each. Full directions accompany each Cone.

Ask for a List of Testimonials, of which some hundreds have been  
received from the leading gardeners in the Kingdom.

To be had from all Seedsman  
and Florists.

MANUFACTURED BY

**CORRY & CO., LTD.,**  
At their Bonded Chemical Works,  
**SHAD THAMES, S.E.**

Office & Show Rooms:—13 & 15 Finsbury St., London, E.C.

# FRUIT TREES IN ALL FORMS.

Many thousands are .  
being supplied yearly to  
Customers in all parts of  
Ireland, and are giving  
entire satisfaction . .

Carriage is paid on all  
orders amounting to .  
over £2 at Catalogue  
Prices to any Station in  
the UNITED KINGDOM.

Illustrated Catalogue &  
Cultural Instructions .  
sent free on application.



CORDONS, BUSHES,  
PYRAMIDS, and . .  
TRAINED TREES on  
Specially Selected Fruit-  
ing Stocks . . . .

250,000 Trees to select  
from.

Customers ordering .  
through the post may  
rely on receiving as .  
good trees as those per-  
sonally chosen . . .

Silver Medal awarded by the Royal  
Horticultural Society of Ireland for  
Collection of Fruit at Dublin Show,  
1907.

## W. SEABROOK & SONS, FRUIT TREE NURSERIES, CHELMSFORD.

### PLANTING SEASON

. . . FOR . . .

ROSES, . . FRUIT TREES,  
FOREST TREES, . . . .  
ORNAMENTAL TREES, AND  
SHRUBS, &c. . . . .

Write for Nursery Catalogue Post Free.

EARLY SEED POTATOES FOR BOXING.

Puritans, May Queens, British Queens, &c.

VEGETABLE AND FLOWER SEEDS

FOR EARLY SOWING.

Every Requisite for the Garden.

W. TAIT & CO.,

Nurserymen and Seedsmen,

119 & 120 CAPEL STREET, DUBLIN.

### HEALTHY NURSERY STOCK

Our Nurseries, near Dundrum, are situated  
**600 feet above sea level**  
at the base of the Dublin Mountains.  
Enjoying the purest air, and growing in  
ideal nursery land, our  
**Plants and Trees are in  
the healthiest condition**  
and thoroughly sturdy.

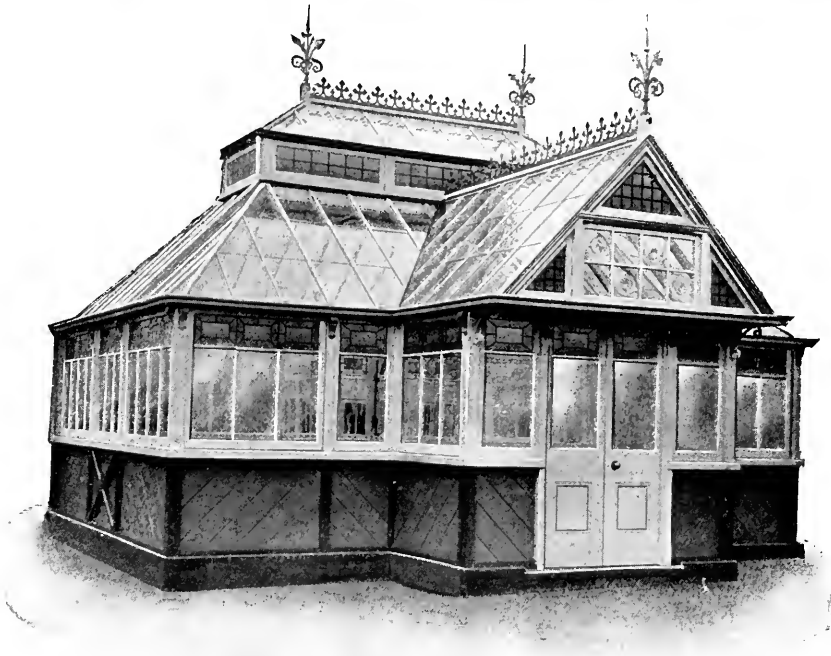
Horticulturists will readily recognise the utility of  
planting such stock for obtaining the best results.

General Nursery List on application.

**The Ashbourne Coy.,**  
Nurserymen,  
15 Parliament Street & 51 Essex Street,  
DUBLIN.

# CRISPIN'S, BRISTOL,

For all classes of  
**Horticultural Buildings**  
and  
**Heating, Ventilating, and**  
**Domestic Supply Apparatus.**



Awarded Prize Medal, Royal Botanic Society.

Reference can be made to the above and other types of Conservatories erected in various parts of Ireland.

---

---

**JAMES CRISPIN & SONS, F.R.H.S.**

Head Offices—NELSON STREET.

Works—ST. PHILIP'S . .

**BRISTOL.**

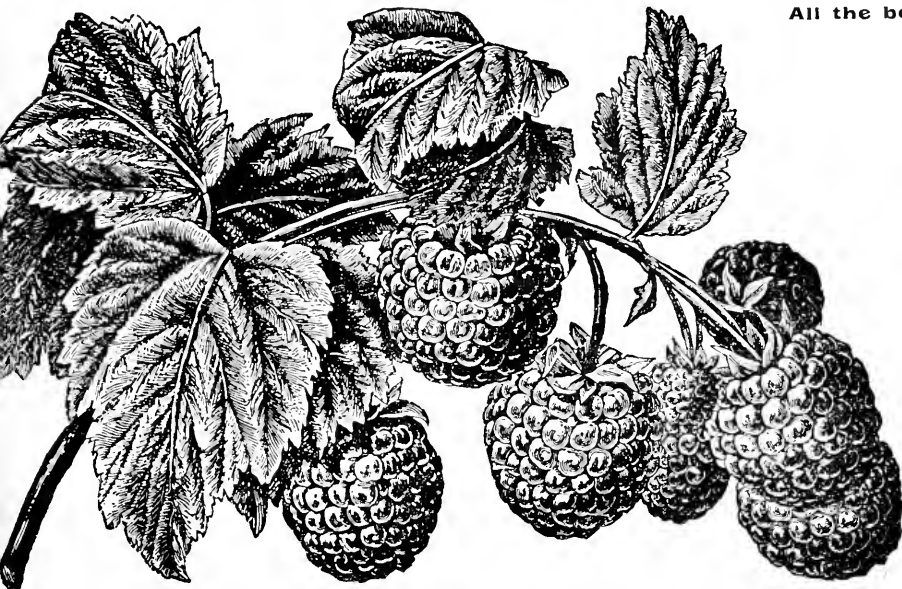


**SEASON 1908.**

# W. HORNE & SONS, Noted Fruit Tree Growers, CLIFFE, nr. Rochester, KENT.

World-wide Reputation.

All the best varieties in cultivation

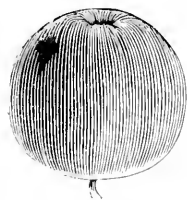


## Raspberries.

The Devon, 1/- each 10/- doz.  
Superlative,  
2/- doz., 5/- 100, 21/- 1,000  
10,000 lots, 20/- 1,000.  
Perfection,  
2/3 doz., 6/6 100, 25/- 1,000  
Baumford Seedling,  
2/6 doz., 6/- 100, 22/- 1,000  
Norwich Wonder,  
2/- doz., 4/- 100, 13/- 1,000  
Hornet (Rivers).  
2/6 doz., 5/- 100, 23/- 1,000  
Carter's Prolific,  
2/- doz., 3/- 100, 13/- 1,000  
And many others.

## Apples.

### List of Prices.



	each	per doz.	per 100
Standards for Orchard Planting	2/-	20/-	£7 0
Half Standards feathered ...	1/3	12/-	3 10
Maidens or 1 year ...	6d.	6/-	2 0
2 and 3 year on Paradise ...	1/3	12/-	4 0
1 year on Paradise ...	6d.	6/-	2 0
Trained Espalier, very fine	3/6 & 5/-	—	—

## Whinham's Industry Gooseberry.

Immense quantities of young Trees of this variety have been grown in this country for America. It has proved itself a good cropper, and is now grown all over England. From Morpeth alone, where it was raised by Mr. Whinham, upwards of 200 tons a year on an average are sent away. It is the first to pick green, and travels well when ripe.

2-year Trees	... 3/- per dozen	15/- per 100
3-year Trees	... 3/- "	18/- "

### Our prices for most of the leading kinds of Gooseberry Trees are:—

	per doz.	per 100
Golden Drop Gooseberry, 2-years	4/-	15/-
Golden Drop Gooseberry, 3-years	4/-	16/-
Berry's Early Kent, 2-years	... 5/-	20/-
Crown Bob, 2-years	... 4/-	15/-
Lancashire Lad, 2-years	... 4/-	15/-
Keepsake, very early, 2-years	... 4/-	18/-

## "May Duke."

Selected 1-year Trees on stems 3/6 per doz. 12/6 100.  
Selected 2 year Trees on stems 4/- " 15/- "  
Selected 3-year Trees on stems 5/- " 18/- "

"May Duke" is the best of all Gooseberries  
for early work.

## Lee's Prolific Black Currant.

This is the Currant for the Market Garden Man. A very fine sort, and does not get the big bud. Enormous cropper and good clean grower, compact and nice appearance.

1-year Trees	... 2/- dozen	8/- 100
2-year Trees	... 3/- "	14/- "
3-year Trees	... 4/- "	16/6 "

## Boskoop Giant (New).

A grand new Currant of most robust growth, bearing very heavy crops of richly flavoured fruit. The bunches are long and the berries very large, sweet and highly flavoured. We have grown it 4 years and have never seen a big bud upon it yet. We strongly recommend this as the best of all Black Currants for Market growing. It is a very strong grower and a good shaped tree.

Strong 1-year Bushes	... 2/6 dozen	12/6 per 100
Strong 2-year Bushes	... 3/6 "	15/- "
White and Red Currant	... —	10/- "

We strongly recommend this Currant as being a very good one. We have had it 4 years and tried it well.

## WOOD TRELLIS ROSE PILLARS.

Unequalled in all respects for the cultivation of climbing roses.

### No. 2.

Height of ribs 8 ft.  
,, over all 10 ft. 8 in.  
Made with eight  
vertical wood ribs.

### PRICES—

Each ... **5/3**  
each  
Three or more **4/9**  
Six or more **4/6**

Taller Pillars, 6d. per foot extra.

Painted two coats Carbolineum.  
**Carriage paid to Ireland.**

Heavier Pillars in other designs, up to **26/-**  
Send for our list of special Rose Trellises, Arches,  
Pergolas, Arbours, all made in wood, post free.

**WALTERS & CO.**

(DEPT. A.),

16 Water Lane, Great Tower Street,  
**LONDON, E.C.**

### No. 3.

Height of ribs 8 ft.  
,, over all 10 ft. 8 in.  
Made with four  
vertical wood ribs.

### PRICES—

Each ... **4/9**  
each  
Three or more **4/3**  
Six or more **4/-**

## Superb New Potato for 1908.

## "THE COLLEEN" (Williamson's).

First in the Trials of Novelties by the National Potato Society, 1906. "Award of Merit" (unanimous vote), Royal Horticultural Society of England, 1907. First of all Second Early Varieties at Dublin International Exhibition, 1907 (crop—13 tons 5½ cwt. per statute acre). Will be the Coming Second Early Potato.

Price 7s. 6d. per Stone; 50s. per Cwt.

**J. F. Williamson, F.R.H.S., Seed Potato Specialist,**  
Mallow, Co. Cork.

## OUTDOOR OR GARDEN CLOGS

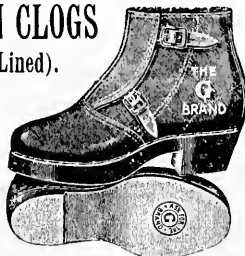
Grain Leather Uppers (Felt Lined).

Made in

Men's, Women's, Youths'  
and Girls' Sizes.

Keenest Price, **3/6** Post Paid.

State size of ordinary  
boot worn.



This is the most useful part of your clothing. Damp ground gives rheumatism to many.

SOLE MAKER—

**JOHN GREENLEES, 4 Wellington Street, GLASGOW.**

## INSECT PESTS UNDER GLASS

Do not trouble the Gardener  
who uses the . . . . .

## "Demon"

## FUMIGATING COMPOUND.

Sample Bottle, to Fumigate 4,000 cubic  
feet, with Lamp, **3/-** post free.

## "ALPHOL"

A Complete Manure, which,  
if applied during Winter or  
. . . Early Spring, . . .

## Quickly Destroys

SLUGS, WIREWORM, EEL-WORMS,  
CABBAGE MAGGOT, AND OTHER  
INJURIOUS INSECTS INFESTING  
SOILS, MANURE HEAPS, &c. . .

PRICES (Carriage Paid)—7 lbs., **2/-**; 14 lbs., **3/-**;  
28 lbs., **5/-**; 56 lbs., **8/6**; 1 cwt., **15/-**; 5 cwt., **£3 15s.**;  
10 cwt., **£7**; 1 ton, **£13 10s.**

28 lbs. will dress 250 square yards. 5 cwt. will dress 1 acre.

DUPLIN CASTLE GARDENS.

Dear Sirs,

Having carefully tested sample of "ALPHOL" which you sent me in spring, I am pleased to say the results have been most gratifying indeed. Used as a manure for soft-wooded plants the effect was extremely good, producing fine healthy foliage and an abundance of flower. When applied on vegetable crops the result was equally good.

I am of opinion that when there is difficulty in growing carrots, owing to attacks of the maggot and also wireworm, "ALPHOL" will prove a reliable agent in warding off the fly, besides acting as a stimulant to the plants.

When mixed among potting soil, all insect life is at once removed. When wood lice and ants are troublesome, a sprinkling of "ALPHOL" in their haunts quickly destroys them.

I am, dear sir, yours very truly,

JOHN WILSON.

## LAWNS TOP-DRESSED .. WITH ..

## "PREMIER" Lawn Manure

RENEW THEIR VIGOUR

And Retain their Freshness throughout the Year.

TRY IT NOW.

28 lbs., to dress 250 sq. yards, **4/6**; 56 lbs., **8/-**;  
1 cwt., **15/-**; 5 cwt., **70/-**

**Boundary Chemical Co., Ltd.,**  
**LUTON STREET, LIVERPOOL.**

# Nursery Stock.—Season 1907-8.

## GALVIN BROTHERS

invite the attention of Horticultural  
Instructors and all interested in Tree  
Planting to their enormous Stock of

### FRUIT TREES, FOREST TREES, EVERGREEN and FLOWERING SHRUBS, ROSES, CLIMBERS, &c.

Their Nurseries at Roscommon, Rathdrum and Wexford comprise more than seventy acres of hardily-grown, regularly-transplanted and healthy stock. Over fifty thousand strong, well-formed, regularly-transplanted 2 years, 3 years, and 4 years' Apple Trees in varieties, recommended by the Department, and all worked by ourselves on Crab and Paradise, are held in stock. Special quotations will be given to County Committees or other intending planters on application.

The following few Specialities are quoted from our Stock:—

BLACK CURRANTS, Baldwin, &c., absolutely free from disease, 2 and 3 years	...	...	...	...	...	15/- per 100; £6 10s. per 1,000
RASPBERRIES, strong transplanted, Superlative, Carter's and Hornet	...	...	...	...	...	7/6 .. 65/- ..
ABIES DOUGLASII, twice transplanted, 1 to 1½ feet	...	...	...	...	...	60/- ..
" " " " 1½ to 2 "	...	...	...	...	...	75/- ..
CORSICAN PINE, 4 years, twice transplanted	...	...	...	...	...	30/- ..
PRIVET, oval-leaved, bushy, 2 to 3 feet	...	...	...	...	...	40/- ..
" " " 3 to 4 "	...	...	...	...	...	70/- ..
SPRUCE, Norway, twice transplanted, 1 to 1½ feet	...	...	...	...	...	17/6 ..
" " moved annually, 3 to 3½ "	...	...	...	...	...	16/- per 100
LAURELS, common and Caucasian, moved annually, 3 to 4 feet	...	...	...	...	...	20/- ..
CUPRESSUS LAWSONIANA, moved annually, 3 to 4 feet	...	...	...	...	...	30/- ..
THUJA LOBII, moved annually, 2 to 2½ feet	...	...	...	...	...	25/- ..
EVERGREEN AND FLOWERING SHRUBS in enormous variety, 3/-, 4/6, and 6/- per dozen.						
ROSES, H. P. leading varieties, 35/- per 100.						
,, tea-scented, in variety, 6/- per dozen; extra strong, 9/- per dozen.						
,, Gloire de Dijon, extra strong, 7/6 per dozen.						
WICHURIANA ROSES, best named varieties, including Dorothy Perkins, extra strong, 6/- per dozen.						

Nurseries : MOUNT TALBOT, ROSCOMMON;  
MOUNT AVON, RATHDRUM, CO. WICKLOW; and  
THE NURSERIES, WEXFORD.

# PLANTING SEASON

EXTENDS TO APRIL.

---

---

30 Gold Medals, 22 Silver Cups for Fruit and Flowers.

---

---

**The Largest Stock and Best Variety of every Class of  
FRUIT TREES**

CAN BE SEEN AT

**GEORGE BUNYARD & Co., Limited.**

---

---

The 800 kinds comprise the best developed stock in Europe, and total nearly a Million in every form for the Orchard or Garden.

APPLES.	FIGS.	NECTARINES.
APRICOTS.	FILBERTS.	NUTS.
BARBERRIES.	GREENGAGES.	ORANGES and LEMONS.
BLACKBERRIES.	GOOSEBERRIES.	PEACHES.
BULLACES.	GRAPE VINES	PEARS.
CHECKERS.	(Hardy).	PLUMS.
CHERRIES.	GRAPE VINES	QUINCES.
CHESTNUTS.	(For Vineries).	SIBERIAN CRABS.
CRABS (Apples).	LOGANBERRIES.	STRAWBERRIES.
COB NUTS.	MEDLARS.	VINES.
CURRANTS.	MIRABELLES.	WALNUTS.
DAMSONS.	MULBERRIES.	

For full particulars see ILLUSTRATED FRUIT CATALOGUE, 6d. post free, with prices.  
Gratis to Purchasers and Gardeners.

---

---

**GEORGE BUNYARD & Co., LIMITED,**  
**Royal Nurseries, Maidstone, Kent.**

ESTABLISHED 1796.

SEND DIRECT; NO AGENTS OR BRANCHES.

# A SPECIAL OFFER

## of Eckford's world-famous Sweet Peas.

When growing Sweet Peas grow only the best. A superb display occupies no more space, takes no more time to cultivate, neither does it cost any more than a poor show.

**ECKFORD'S**  
**Giant Sweet Peas**  
 have been awarded over  
**120 Gold and Silver Medals.**

**Sweet Peas are our great Speciality.** We were the first to grow them in anything like big quantities, and practically created the huge business that is now done with them. To-day we are the largest retail growers and the largest retailers of Sweet Peas in the world.

**Every year we grow over forty acres for seed,** producing the best seed grown—seed that will give you brighter colour, larger flowers, and longer stems than any other seed offered for sale.

**Our customers in all parts of the world** have grand displays, and win big prizes. But remember that they are only genuine when obtained direct from Wem—we do not supply the trade. We send you a booklet free with every order telling you how to grow and show Sweet Peas.

**Here is the Special offer that we are making for a short time only:**  
 we will supply

**ANY DOZEN PACKETS PRICED AT 3d. for 2/9 POST FREE.**

"	"	"	"	"	6d.	"	5/6		
"	"	"	"	"	1-	"	10/6	"	,

The above does not apply to Novelties. See Catalogue for **Special Novelty 0 er.**

**ECKFORD'S CULINARY PEAS ALSO LEAD.**

There is nothing to equal them for Crop and Flavour. And the price is right.

Write to us for our **FULL DESCRIPTIVE PRICED CATALOGUE** with Coloured Illustrations. Sent Post Free.

**Henry Eckford**  
**The Sweet Pea Specialist**  
**WEM. Shropshire**

# Department of Agriculture and Technical Instruction for Ireland.

## LIST OF DEPARTMENT'S LEAFLETS.

No.	Name.	No.	Name.
1	The Warble Fly.	48	Foul Brood or Bee Pest.
2	<i>Out of Print.</i>	49	Poultry Fattening.
3	<i>Out of Print.</i>	50	Portable Poultry Houses.
4	Workmen's Compensation Act.	51	The Leather-Jacket Grub.
5	<i>Out of Print.</i>	52	Flax Experiments.
6	Charlock Spraying.	53	The Construction of a Cowhouse.
7	Fluke in Sheep.	54	Calf Meal.
8	Timothy Meadows.	55	The Apple.
9	The Turnip Fly.	56	Cultivation of the Root Crop.
10	Wireworms.	57	Fruit Packing.
11	Prevention of White Scour in Calves.	58	Sprouting Seed Potatoes.
12	<i>Out of Print.</i>	59	Seed Testing Station for Ireland.
13	Contagious Abortion in Cattle.	60	The Packing of Butter.
14	Prevention of Potato Blight.	61	The Care of Milk for Creameries.
15	Fertilizers and Feeding Stuffs Act, 1906, Regulations.	62	Plans for Creamery Buildings.
16	Sheep Scab.	63	"Redwater" or "Blood Murrain" in Cattle.
17	The Use and Purchase of Manures.	64	Varieties of Fruit suitable for cultiva- tion in Ireland.
18	Swine Fever.	65	Forestry: The Planting of Waste Lands.
19	Early Potato Growing.	66	Forestry: The Proper Method of Plant- ing Forest Trees.
20	Calf Rearing.	67	Forestry: Trees for Poles and Timber.
21	Diseases of Poultry—Gapes.	68	Forestry: Trees for Shelter and Orna- ment.
22	Basic Slag.	69	The Prevention of Tuberculosis in Cattle.
23	Dishorning Calves.	70	Forestry: Planting, Management, and Preservation of Shelter-Belt and Hedgerow Timber.
24	Care and Treatment of Premium Bulls.	71	Forestry: The Management of Planta- tions.
25	Fowl Cholera.	72	Forestry: Felling and Selling Timber.
26	Winter Fattening of Cattle.	73	The Planting and Management of Hedges.
27	Breeding and Feeding of Pigs.	74	Some Common Parasites of the Sheep.
28	Blackleg, Black Quarter, or Blue Quarter.	75	Barley Sowing.
29	Flax Seed.	76	American Gooseberry Mildew.
30	Poultry Parasites—Fleas, Mites, and Lice.	77	Scour and Wasting in Young Cattle.
31	Winter Egg Production.	78	Home Buttermaking.
32	Rearing and Fattening of Turkeys.	79	The Cultivation of Small Fruits.
33	Profitable Breeds of Poultry.	80	Catch Crops.
34	The Revival of Tillage.	81	Potato Culture on Small Farms.
35	The Liming of Land.	82	Cultivation of Main Crop Potatoes.
36	Field Experiments—Barley.	83	Cultivation of Osiers.
37	" " Meadow Hay.	84	Ensilage.
38	" " Potatoes.	85	Some Injurious Orchard Insects.
39	" " Mangolds.	86	Dirty Milk.
40	" " Oats.	87	Barley Threshing.
41	" " Turnips.	88	Instructions for the Home Bottling of Fruit.
42	Permanent Pasture Grasses.	89	The Construction of Piggeries.
43	The Rearing and Management of Chickens.		
44	"Husk" or "Hoose" in Calves.		
45	Ringworm on Cattle.		
46	Haymaking.		
47	The Black Currant Mite.		

Copies of the above Leaflets can be obtained, FREE OF CHARGE and post free, on application to the Secretary, Department of Agriculture and Technical Instruction for Ireland, Upper Merrion Street, Dublin. Letters of Application so addressed need not be stamped.

BY ROYAL  
APPOINTMENT



TO H.M.  
THE KING.

**STRIKING  
SUCCESS**

# WEBBS' SEEDS

**STRIKING  
SUCCESS**

**GOLD MEDALS AT SHREWSBURY, READING, BIRMINGHAM, &c., IN 1907.**



Section of Webbs' Gold Medal Exhibit at the Great Shrewsbury Show, 1907.

## Valuable Vegetables for Early Work.

Webbs' New Little Marvel Pea	-	per quart	2/6	Webbs' New Epicure Melon	-	per pkt.	2/6
Webbs' New Pioneer Pea	-	"	3/-	Webbs' Forcing Gem Lettuce	-	"	1/-
Webbs' Abundance Dwarf Bean	-	"	3/-	Webbs' New Emperor Tomato	-	"	1/6
Webbs' Early Frame Cauliflower	-	per pkt.	1/6	Webbs' Early Frame Radish	-	per oz.	6d.
Webbs' New Wonderful Carrot	-	per oz.	1/3	Webbs' New Silver Ball Turnip	-	"	6d.
Webbs' Seld. Ailsa Craig Onion	-	per pkt.	1/6	Webbs' New Colonist Potato	-	per peck	4/-
Webbs' Impd. Telegraph Cucumber	-	"	1/6	Webbs' Express Potato	-	"	3/6

*For full particulars, see WEBBS' SPRING CATALOGUE, post free, 1-. Gratis to Customers.*

# WEBB & SONS, WORDSLEY, STOURBRIDGE.



## Correspondence—continued.

## BARGAINS.

SIR,—With the advent of December and IRISH GARDENING a friend remarked, "I think this last number (the paper, not the month) particularly good." I thought so, too; nevertheless, that opinion quoted *verbatim*, had something to do with the fruit-tree discussion, over which piquant pens are engaged in a little wordy warfare, and like a little war, if not very much in itself, sometimes means a lot. Discussion begets discussion, and another friend (gardeners have many) said relative to this matter, but more in allusion to the sweet uses of advertisement, by which an unpractical public are lured by glaringly low prices to stock their ground with rubbish, "Oh! this is called 'sharp practices.'" This, it must be explained, covered more ground than the *quid pro quo* of business, and extended into the great field, advertising—advertising in that manner which conveys impressions not borne out by facts. I, in my haste, summed up the whole thing under a less palatable name, but my friend (friend number two) toned the hasty and ugly conclusion down into "sharp practices"—sharp, not corrupt, within the meaning of the Act. This, undoubtedly, is a far-reaching question, and a broad one—too broad to narrow down to isolated instances or exceptional circumstances—hence, in expressing a few thoughts on this matter for the benefit of purchasers who do not know, and for the protection of gardeners *who do* know, but are helpless, I will for the nonce close my eyes and ears to the whole correspondence in IRISH GARDENING on the subject, and conversation contingent on it.

First, as to very low prices quoted for nursery stock, they are, as an intending jubilant buyer exclaimed, "rubbish prices." That is so, and what one obtains for rubbish prices is, of course, rubbish which he, apparently,

brought not into the calculation. This is merely a truism, but it takes some people a long time to discover it. We have yet to find the nurseryman who is trading on a purely philanthropic basis—viz., parting with valuable goods at rubbish prices. Yet, somehow, there are not a few who think it is being done, and flatter themselves over the great bargains they are getting. How bargain hunters can ignore plain, solid facts it is hard to understand, but they do for a time, at least; yet it is not so much the vendor that deceives them as it is that they deceive themselves. But a little reflection would serve to show how obvious is the whole thing, and whether it is the difference between an apple-tree at eighteen pence and one at five shillings, or laurels at a penny and sixpence, respectively, the purchaser just gets what he is paying for, no more, and he need not flatter himself to the contrary.

On one occasion, during some rather extensive shrubbery work, several hundreds of bushy laurels (*rotundifolia*) were bought, the price working out at about sixpence each. An interested visitor (one who always wanted to know the price of everything, and a good deal more besides) said they were far too dear: he could get laurels far cheaper from "So-and-So." He gave "So-and-So's" address, and a quotation asked for resulted in a sample hundred being ordered, three feet high, at eight shillings per hundred. Being duly advised that "trees" were waiting at the station, a farm-cart was despatched for them, with orders to the carter not to crush them, but to go twice if necessary. Those we had had been put straight into the wagon without packing, and had such massive roots that something less than a hundred filled our rather small cart. *Sequel:* In due course the carter came back full trot, with a broad grin but no outward and visible sign of a hundred laurels three feet high, until he pointed (somewhat triumphantly) to a long, lean bundle in the bottom of the cart. A hundred laurels! save the mark. "Thraneeens" the man called them as he undid the bundle; something

# FLOWER

## Garden Vases, Edging Tiles, Drain Pipes.

# POTS,

### Best Quality, Lowest Prices!

Write for Illustrated Catalogue to the Manufacturers—

# W. O. McCORMICK & CO.,

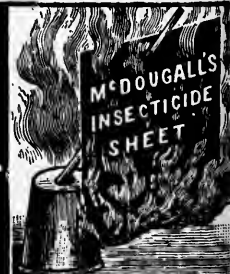
Kill-o'-Grange Pottery, Monkstown, Co. Dublin.



## FUMIGATE WITH McDOUGALL'S "FUMERS" or "SHEETS"

### SAFE—HANDY—EFFECTUAL—ECONOMICAL.

### STOCKED BY ALL SEEDSMEN.



**CANARY  
GUANO**  
FOR GREENHOUSE & GARDEN  
THE BEST IN THE WORLD

Sold by Seedsmen and Nurserymen.  
For full directions for use and all particulars, write to  
**The Chemical Union, Ltd, Ipswich**

**Vegetable, Flower, and Farm Seeds**  
From the Finest Stocks and Strains in Cultivation.  
*Catalogue Post Free.*  
**BROWNE, THOMPSON & CO.**  
(Successors to Oakenhead & Co.),  
**Seedsmen, CORK.**  
Telegrams—"THOMPSON, SEEDSMAN, CORK."

## "NICOTICIDE" Fumigant.

Half-gallon Tin, containing sufficient for 160,000 cubic feet	60s.	} Carr. paid.
No. 1 size Tin—1 pint	40,000	
No. 2 size Tin—1 pint	20,000	
No. 3 size Bottle—6 oz.	12,000	
No. 4 size Bottle—4 oz.	8,000	
No. 5 size Bottle—1 oz. (sample)	2,000	10d.

### FUMIGATORS,

1 each, for 5,000 cubic feet.

### NICOTICIDE PLANT WASH For Outdoors.

1 Pint, 1/2; Pint, 2/-;  
Quart, 3/6; 1/2 Gallon, 5/-;  
Gallon, 10/-



Gow's Slug and Wire-  
worm Destroyer,  
Lawn Sand, Daisy  
Eradicator,  
Tobacco Powder and  
Quassia Extract.

Sold in 6d., 1/4, also 2/6  
Tins and larger sizes.

INSIST ON YOUR SEEDSMAN  
SUPPLYING THEM.

**GOW'S WINTER ALKALI TREE WASH** for destroying Woolly  
Aphis, Scales, Lichen Moss and Apple Suckers, &c. Half-gallon, 2/6; Gallon, 5/-,  
carriage paid. One gallon will make 20 gallons solution.

**HUNTER & COW, 46 Thomas Street, LIVERPOOL.**

## IRISH QUEEN.

FELLOW-COUNTRYMEN,—If I could get you to know  
the merits of this New Potato I don't believe my stock  
would last 24 hours.

**IRISH QUEEN alone gives universal satisfaction** in Ireland. It does well on all soils, is a  
**fine cropper** and **disease-resister**, round in shape,  
with practically **no chaps**, whilst as an **Eating Potato**  
it **excels everything**. Unequalled since 1847.

Considering its merits and the limited Stock, I am  
offering it at a nominal price for early delivery. Catalogues free.

**ISAAC BELL, Parkmount, BANBRIDGE.**

## LEADING LINES.

IF YOU WANT . . . **SWEET PEAS** . . . PURCHASE THE  
. . . THE BEST . . . COLLECTIONS OFFERED BY  
**S. MCGREDY & SON,**

### *Novelty Collection, No. 1.*

Saint George, White Spencer, Primrose Spencer, Horace Wright, Lord Nelson, Mrs. W. King. Post free, 3s.

### *Novelty Collection, No. 2.*

Enchantress, George Herbert, Mrs. Collier, Nora Unwin, Phenomenal, Queen Alexandra. Post free, 2s.

No. 1 and No. 2 NOVELTY COLLECTIONS Complete, 4s. 6d.

Sweet Peas, as Classified by National Sweet Pea Society.

THE 26 VARIETIES, OFFERED IN ONE COLLECTION, Complete, 7s. 6d.

## SEED POTATOES.

### FOR SPROUTING.

FOR PERFECT SEED, PURE STOCKS, and RELIABLE VARIETIES, WE HAVE A UNIQUE RECORD.

Duke of York, 2s. stone; Duke of Albany, 1s. 6d. stone; Myatt's Ashleaf, 1s. 6d. stone; Puritan, 2s. stone;  
Sir John Llewelyn, 1s. 6d. stone; Webber's E. White, 1s. 6d. stone; British Queen, No. 2, 2s. 6d. stone; British  
Queen (Original Stock), 1s. stone. Special prices per cwt.

*The above are the best varieties for Boxing, and orders are despatched promptly.*

**A CHANGE OF SEED IS THE BEST ANTIDOTE TO THE DISEASE.**

**NEW SEED LIST FOR 1908, a Reliable Guide, containing only the best varieties, most suitable for Irish cultivation, post free.**

**SAMUEL MCGREDY & SON, PORTADOWN.**

over a hundred, too, and some nearer four feet than three; but, of course, "thraneen prices." They had simply been lifted straight out of the cutting bed, and not even once transplanted, and we completed the nursery programme by cutting them down and planting them out in a nursery bed, with eventual transplanting, until at the fourth of the year they were presentable plants, but had probably cost more than sixpence each. Now if plants under these conditions were purchased on the understanding that the gardener was to complete the nursing process, well and good, which obviously no one wants to do, there would be nothing more to say on this head; but, as remarked, gardeners should have protection in this matter and not be blamed for failures for which they are not responsible. As regards fruit-tree planting, especially under its commercial aspect, it is a much more serious matter to furnish a farmer with, say, apple trees on parallel lines—a farmer who has neither knowledge nor inclination to complete the nurseryman's business, even if it were possible to do it with such raw material, which is doubtful—is not the way to push fruit farming in Ireland, or anywhere else.

There is no man so well fitted for this nursery work as the nurseryman, but as none yet carry out the work on purely philanthropic lines, he has to be paid, and the higher priced article is exactly the difference summed up in rent, labour, and skill; and very possibly the cheap (?) tree yields the highest profit to the vendor—that is, he who caters for bargain-hunters, which no firm of repute can afford to do. There is another phase of this question which bargain-hunters are not apparently conversant with, and one not pertaining to rubbish but to continental grown subjects, which are produced under infinitely cheaper conditions than obtain, or are ever likely to obtain, at home. Other things being equal there is, of course, no reason why purchasers should not avail of the cheaper article. But other things are not equal, and well the nurseryman knows it who merely acts as agent between grower and customer, which, needless to say, is not set forth in the advertisement. One orders,

for example, certain things from a nurseryman under the impression that such things are his own production, whereas, as a matter of fact, under this phase of it the trees, shrubs or what-not, come direct from Holland and are re-labelled, possibly repacked, at the nursery and sent on to the customer. Now what is termed "Dutch stuff" is grand to look at—such clean growth, and luxuriant leafage—and the purchaser may well think he has a bargain until he finds the "stuff" get smaller by degrees and beautifully less; then he knows there is something wrong, and the gardener is fortunate if he is not made the scapegoat. There is a vast difference between the climatic conditions of Holland and Ireland, and if this imported stuff was properly acclimatised in the nursery under, say, one or two years' nursery treatment there would be nothing to object to, for probably nothing was the matter. That, at least, is the writer's experience of Dutch nursery produce. Some do carry out this vitally necessary acclimatising, which, of course, adds something to the price: it has to be paid for; but some don't, hence the evil. That the latter manage to retain trade is, we suppose, owing to the willingness of the public to be fooled, or at least a portion of the public, and this keeps their ball of trade rolling. But, as a statesman said, you cannot fool all the public all the time, and it is not on these lines that our great nurserymen have not only built up solid reputations but retained them in the face of a keenness of competition unknown when they started. Why the very names of such firms are names to conjure with in the great gardening world; but, in conclusion, there are plenty of smaller men in the trade who work on the straight lines that honesty is the best policy. Some, indeed, go even higher in their interpretation of the old proverb, and believe that honesty is the best principle, for a principle is on a higher pedestal than a policy. And in this, as in aught else,

"Honour and fame from no condition rise:  
Act well your part, there all the Honour lies."

E. KNOWLDIN, F.R.H.S.

Without doubt the most popular flowers at the present time are

## **SWEET PEAS,**

and in compiling our

# **Gem Collections of Giant-Flowered Varieties**

we believe we have succeeded in providing for our customers a selection of sorts which are unrivalled in range of colour, size of flower, and general good qualities.

The two collections, A and B, embrace **the finest collection of twenty-four sorts ever offered at popular, cheap prices.**

### **Gem Collection A**

comprises the following 12 sorts, viz.—

Dorothy Eckford, Countess Spencer (re-selected), John Ingman, Helen Lewis, King Edward VII., Scarlet Gem, Hon. Mrs. E. Kenyon, Black Knight, Miss H. C. Philbrick, Romola Piazzani, Agnes Johnson, Navy Blue.

**Collection 1A**—200 seeds of each of the above, 4/6

**Collection 2A**—100 " " " 2/9

**Collection 3A**—50 " " " 1/6

Collections No. 1A and No. 1B together for 7/.

Collections No. 3A and No. 3B together for 2/6.

### **Gem Collection B**

comprises—

Dainty, Phenomenal, Mrs. Walter Wright, Bolton's Pink, Duke of Westminster, D. R. Williamson, Janet Scott, Gladys Unwin, Prince of Wales, Coccinea, Jeanie Gordon, Lady Grizel Hamilton.

**Collection 1B**—200 seeds of each of the above, 3/=

**Collection 2B**—100 " " " 1/9

**Collection 3B**—50 " " " 1/=

Collections No. 2A and No. 2B together for 4/.

For full descriptions of these and all other vegetable and flower seeds see our new illustrated Catalogue, post free on application

**Alex. Dickson & Sons, Ltd.,** 55 Royal Avenue, BELFAST.  
61 Dawson Street, DUBLIN.

# WALSH'S SEEDS

## Catalogue & Guide for 1908

NOW READY.

Full of Useful Information.

FREE ON APPLICATION.

Write for it to-day, to-morrow may be too late.

All Seeds Carefully Tested on the Premises.

## WALSH'S ROSES

— AND —

## FRUIT TREES.

EXTRA STRONG, HARDY, WELL-ROOTED,  
TRUE TO NAME.

Hundreds of Thousands to select from.

*Descriptive List Free.*

**JAMES WALSH,** Seedsman &  
Nurseryman,  
**PORTADOWN.**

## The Planting Time

A Visit to

**Messrs. Watson & Sons' Nurseries,**  
Clontarf,

**W**ILL convince intending planters that there is no need to cross the Channel for roses, fruit trees, or indeed most nursery stock, which formerly was not to be obtained satisfactorily in Ireland. Messrs. Watson have been steadily increasing their premises, and now, with their large nurseries, are in a better position year by year to supply all wants in home-grown stuff, at prices and of quality which will compare favourably with any reliable grower. Long-distance carriage is saved to their patrons, and, what is perhaps more important with goods of a perishable nature, owing to their nurseries being situated in the metropolis the most direct routes are available to the provinces, with the result that the trees arrive in perfect condition, and are replanted before they have time to suffer. Messrs. Watson will attend to postal or telephone inquiries from those too distant or unable to spare time to visit the nurseries and see for themselves. The entrance to the nurseries is only fifteen minutes tram drive from Nelson's Pillar. — *Daily Express.*

*New 40-page Catalogue free on request.*

ALL OWNERS OF GARDENS OR FARMS  
SHOULD SOW

# DRUMMOND'S Celebrated SEEDS.

Drummond's Vegetable Seeds

Drummond's Flower Seeds

Drummond's Flower Bulbs

Drummond's Fruit Trees

Drummond's Garden Tools

Drummond's Horticultural Sundries

**AWARDED**  
**281 FIRST PRIZES**  
**in 1906-7.**

Drummond's Grass Seeds

Drummond's Clover Seeds

Drummond's Root Crop Seeds

Drummond's Seed Grain

Drummond's Seed Potatoes

Drummond's Special Manures

Catalogues Free. Please say whether Garden, Farm, or Nursery Catalogue is required.

**W. DRUMMOND & SONS, LTD.,**  
**57 & 58 Dawson Street, DUBLIN.**

**Correspondence—continued.****LARCH PLANTING IN IRELAND.**

SIR,—Will you kindly allow me a space in your columns regarding the growing of larch in Co. Meath, which is the leading industry around Aghir, Summer Hill. About 130 years ago there was no such thing as larch in this country, only one larch tree that grew in Dangan, once the seat of the Duke of Wellington, and one of his foresters pulled some seed from this tree, and, sowing them, succeeded in raising 20,000 young larch. As the fairs were then few and far between, he went with them to the fair of Balanoslow, where he succeeded in selling them for £1,000, and from that date to this it has been the leading industry in this neighbourhood. I am sorry to say the sales of this season are bad, for a nursery requires a good capital, and, needless to say, only for the good Scotch and Englishmen the business would have been wiped out 100 years ago. Up to the last two years 30 million seedlings have been sent out from Co. Meath yearly. I have myself sold to one nursery man 2,000,000 seedlings a year. He bought none this season, and that loss I deeply deplore.

I sincerely wish the business could be revived, and given a chance once again, as this nursery gave work to over 200 people, and in the months of August and September the nursery gardens are a scenery. I hope that the future will bring brighter days to our old industry.

M. A. HEALY,

Aghir Nurseries, Co. Meath.

**LARCH DISEASE.**—Following our article on the Larch in last month's issue, Messrs. Wm. Power & Co., of Waterford, issues "A Warning" to Irish planters, a copy of which is enclosed as an inset in the present number.

**A Revolution in Fruit Culture.****V1 Fluid.**

The Winter Spray-Fluid kills the eggs of Insects and Mites and the Spores of Fungi.

**V2 Fluid.**

The Summer Spray-Fluid is deadly to Aphis, Psylla, and Scale Insects, and does not injure Leaf or Blossom.

*A Kentish Fruit Grower writes—*"The benefits of V1 Fluid were simply marvellous . . . the fruit as perfect as I ever expect to grow it."

Send for our free booklet J., "The Spraying of Fruit Trees," which gives full particulars of these wonderful Insecticides.

**WM. COOPER & NEPHEWS,**  
BERKHAMSTED.

**ROYAL IRISH ROSES.**

By Appointment to



HIS MAJESTY THE KING.

**HUGH DICKSON, Royal Nurseries,  
BELFAST.**

**ROSES for** 

**BEDS**

**WALLS**

**WILD GARDEN**

**ARCHES**

**MASSING**

**WEEPING**

**PERGOLAS**

**SHRUBBERY**

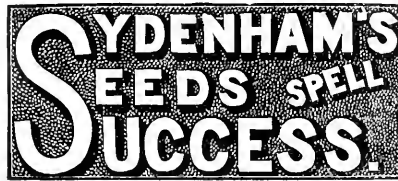
**CREEPING, and**

**ROSES for any and every purpose for which a Rose can be employed. Thousands of strong, vigorous and healthy Plants in all the best and newest varieties.**

Descriptive Catalogues on  
application.

Special quotations for large  
quantities.

Please carefully address  
as above.

SPECIAL  
NOTICEFOR  
1908.

IF YOU WANT

# REALLY GOOD SWEET PEAS

AT MODERATE PRICES, send to

**MR. ROBERT SYDENHAM, TENBY STREET, BIRMINGHAM.**

No Flowers give so much cut bloom at so little cost and trouble as Sweet Peas.

## SPECIAL COLLECTIONS FOR 1908.

The seeds in these Collections are all carefully hand picked; only plump round seeds sent; all small, poor, or doubtful ones are taken out, which I do not think is done by anyone else in the trade; eighty to ninety per cent. guaranteed to germinate if treated as instructions sent with each collection.

Each Packet in Collections 1, 2 and 3 contains 50 plump round selected seeds.

For fuller descriptions of the varieties mentioned in this list and all other known varieties, I refer my friends to my little book "ALL ABOUT SWEET PEAS," revised and corrected to end of 1907. Price 6d.

ALL INTERESTED IN SWEET PEAS SHOULD BUY THIS LITTLE BOOK BEFORE PURCHASING THEIR SUPPLY FOR THE SEASON; AND MAY DEDUCT THE 6d. PAID FOR IT FROM THE FIRST 5s. SENT FOR SEEDS.

**COLLECTION No. 1—TWELVE USEFUL VARIETIES, 1/6.**—Bolton's Pink, large salmon pink; David R. Williamson, rich medium blue; Gladys Unwin, pale pink, slightly darker edge; Lovely, pale pink; Mrs. C. Higginson, pale French grey; Navy Blue, deep violet blue; Prince Edward of York, rosy salmon standard, lighter wings; Prince of Wales, rich rosy crimson; Sadie Burpee, white; Salopian, deep mulberry red; Scarlet Gem, pale scarlet; Triumph, rosy salmon and blush.

**COLLECTION No. 2—TWELVE BETTER VARIETIES, 1/9.**—Agnes Johnston, salmon pink and buff; Black Knight, bronzy chocolate; Blanche Burpee, white; Countess Spencer, large pale pink wavy standard; Dainty, white, with slight pink edge; Duke of Westminster, rosy violet; Evelyn Byatt, orange and crimson bicolor; Flora Norton, rich sky blue; Janet Scott, pale pink, flushed buff; King Edward VII., rich crimson; Miss Willmott, salmon red; Romollo Piazani, rich blue.

SINGLE PACKETS OF ANY VARIETY IN COLLECTIONS Nos. 1 and 2, 2d. each, COLLECTIONS Nos. 1 and 2, when bought together, will be 2 6, and a packet of "Coccinea" and "Horace Wright" will be added free of charge.

**COLLECTION No. 3—THE BEST TWELVE VARIETIES, 2/-.**—Dorothy Eckford, white; George Herbert, pale carmine standard, lighter wings; Helen Lewis, syn. ORANGE COUNTESS, rich wavy orange standard, rosy wings; Helen Pierce, marbled or grained blue; Henry Eckford, orange scarlet; Hon. Mrs. Kenyon, pale primrose; Jeannie Gordon, carmine and buff; Lady Grisel Hamilton, pale lavender; Mrs. Walter Wright, rich lavender blue; Paradise, rich pink, the best of the COUNTESS SPENCER type; Queen Alexandra, the best crimson scarlet; Sybil Eckford, creamy buff, flushed pale pink.

SINGLE PACKETS OF ANY VARIETY IN COLLECTION No. 3, 3d. each, OR ANY SIX FOR 13. COLLECTIONS Nos. 2 and 3 may be had together for 3/-, and a Packet of "Phenomenal" and "Earliest of All White" will be added free of charge.

## SPECIAL PRICE FOR THE THREE COLLECTIONS, 4/-

and when bought together, the four added packets and a packet each of the four best striped varieties, viz.:—

Jessie Cuthbertson, Mrs. J. Chamberlain, Marbled Blue and Unique,

will be added free of charge, making 4/- of the very best varieties in cultivation, at an average cost of about one penny a packet.

PRICE OF EITHER OF THE EIGHT ADDED VARIETIES, IF WANTED ALONE, 2d. EACH.

**COLLECTION No. 4—THE TWELVE NEWEST VARIETIES, 4s., or what I consider the Best of the Newest.** The number of seeds in these packets varies, the quantities are stated in black figures after each name. Agnes Eckford (15), soft blush pink, 3d.; Earl Cromer (20), mulberry, 4d.; Frank Dolby (20), lavender, 4d.; Herbert Smith (25), orange bicolor, 6d.; Lord Nelson (20), syn. BRILLIANT BLUE, dark blue, 4d.; Miss Millie Maslin (25), rich crimson, 4d.; Mrs. Hardcastle Sykes (20), blush pink, 6d.; Mrs. Collier (20), new primrose, 4d.; Nora Unwin (20), white, 4d.; Primrose Spencer (10), syn. or improved CLARA CURTIS, grand new wavy primrose, 6d.; Queen of Spain (20), salmon pink, 4d.; White Spencer (10), syn. or improved ETTA DYKE, the newest, best, and largest wavy white yet raised, 6d.

COLLECTIONS Nos. 3 and 4 may be had together for 5/- and a packet of the newest and best Everlasting Pea, WHITE PEARL, free of charge.

Any variety in Collection No. 4 may be had at the prices mentioned after each name, or six packets at the price of five, or buyers may select their own varieties from either Collection at prices mentioned, and have 3s. worth for each 2s. 8d., or six packets of any variety at price of five.

PRIMROSE SPENCER and WHITE SPENCER may be had in Packets of 25 seeds, 1s. each, or six packets for 5s.

## SPECIAL PRICE FOR THE FOUR COLLECTIONS, 7/-

And in addition, a packet of MRS. CHARLES FOSTER and JOHN INGMAN seedlings will be added, and a PRIZE of £5 given to the first who can and will send me a thousand seeds of either that are true and guaranteed to come true the following year.

CHOICE MIXED SEEDS of most of the above, and other varieties, 2d. per packet of about 100 seeds; 6d. per ounce of about 350 to 400 seeds; 1s. 6d. per ½ lb., or 5s. per lb. of about 5,000 to 5,500 seeds.

All other seeds equally cheap and good.

Full List post free on application.

PLEASE MENTION THIS PAPER.

# M. SAUNDERS & SONS

"Special" Guinea Collection

OF

## Fruit Trees.

THE BEST VALUE EVER OFFERED.

9 APPLES	-	3 Years Old.
3 PEARS	-	do.
3 PLUMS	-	do.
3 CHERRIES	-	do.
12 GOOSEBERRIES	-	do.
12 CURRANTS	-	do.

ALL BEST VARIETIES. PACKING AND  
CARRIAGE FREE, FOR CASH  
WITH ORDER.

**Friar's Walk Nurseries,**  
**CORK.**

# ROWAN'S

**EARLY POTATOES** for Sprouting or  
Boxing.

PURITAN, SHARPE'S EXPRESS, MAY QUEEN,  
2/- 2/- 2/- per stone.

PEAS—First Sowing—Bountiful, 1/6; Ameer; 1/6  
per qt.

BEANS—Kidney—Osborne's forcing, 2/- per qt.

" Broad—LONG POD EARLY, 8d. per qt.

CARROT (For Frames)—French Horn, 6d. per oz.

CUCUMBER—Telegraph—1/- per pkt.

ONION—AILSA CRAIG—Best for Early Sowing in  
boxes, 6d. per pkt.

RADISH—Crimson Giant Forcing—per oz. 6d.

SPINACH—New Giant thick-leaved—pint 1/-, oz. 3d.

TOMATO—Selected—LISTER'S PROLIFIC, 6d. & 1/-  
pkt.

SWEET PEAS—LATEST NOVELTIES

**Catalogue of Seeds for 1908 post  
free on application**

TELEPHONE 672.

**M. ROWAN & Co.,**

Seed, Bulb, Plant Merchants,

51 & 52 CAPEL ST.,

**DUBLIN.**

## NEW GIANT-FLOWERED

# SWEET PEAS.

## Edmondson's Eblana Collections

of the 25 Best New Giant-Flowered Sweet Peas.

25 Varieties,	40 Seeds each	...	...	...	1,000 Seeds for	1/6
25 do.	80 do.	...	...	...	2,000 do.	2/6
25 do.	175 do.	...	...	...	4,375 do.	5/-

The "Minor Eblana" Collection ... 12 Choice Sorts, 1/-

Eblana Mixture—1 quart, 5/-; 1 pint, 2/6; half-pint, 1/6; per oz., 3d.

Giant-Flowered Mixture per lb., 5/-; half-lb., 2/6; per oz., 6d.

**EDMONDSON BROTHERS,**

Seedsman, 10 Dame Street, DUBLIN.



## Sir James W. Mackey's New Catalogue

---

SIR JAMES W. MACKEY, LTD., have pleasure in announcing that their new Garden Seed List has just been published, and that a copy has been posted to each of their customers. They will be much obliged for early information in event of non-delivery in order that another copy may be forwarded in all such cases.

They will also have much pleasure in sending copies in response to the request of others interested who may wish to compare their prices or who may be disposed to intrust to them a trial order. On either ground they entertain the fullest confidence that it will prove mutually remunerative.

By reason of their favourable position, in making early arrangement with their growers, they have been able to ensure full supplies, which they are offering at the usual reasonable prices in spite of the inclemency of the past season. The high quality of their stocks is universally admitted, as a reference to the list given on the first page of their catalogue of some of the distinguished personages who have honoured them with their patronage will sufficiently testify.

They have also much pleasure in being able to announce that they have again been awarded the GOLD MEDAL of THE ROYAL HORTICULTURAL SOCIETY OF IRELAND for "An Excellent and Comprehensive Display of Vegetable and Fruit" at the Autumn Show of the Society, held at Ballsbridge (1907), a considerable portion of which had been contributed by customers in various parts of the country, and for which they return their grateful acknowledgments.

They further beg to state that all communications will continue to receive the prompt and personal attention of the Managing Director, and that as a result of their elaborate preparations they are in a position to promptly execute whatever orders may be intrusted to them.

**23 Upper Sackville Street, DUBLIN**



# JONES, F.R.H.S.,

Has to offer this planting season a really splendid lot of

over 25,000 Fruit Trees,  
in Apples, Pears, Plums, &c., &c. True  
named, healthy, transplanted, well-shaped  
trees, at very low prices. Equal value  
not to be had elsewhere in Ireland.

Lists and Quotations per return post.

Large Stocks of Bush Fruit, Roses, Shrubs, and  
Forest Trees at equally reasonable rates.

**JONES, F.R.H.S.,** FOREST LODGE NURSERIES, **GOWRAN, Co. Kilkenny.**

**New Garden Seeds, 1908.**

## RITCHIE'S Genuine Tested Seeds

Are still to the front.

*Our New Descriptive and Illustrated Catalogue  
Post Free on Application.*

## NURSERY STOCK.

All kinds of Fruit and Forest Trees,  
Hedging Plants and Shrubs of every  
description.

*Please send for Hardy Perennial List Free.*

**ARTHUR S. RITCHIE & CO.,**

89 & 91 Victoria St., Islington Nurseries,

BELFAST.

Telephone 850.

and

Bangor, Co. Down.

Telephone 44.



## CROSS'S CELEBRATED GARDEN FERTILISER

UNEQUALLED FOR

POT PLANTS, FRUIT TREES,  
FLOWERS, and VEGETABLES.

MEDALS awarded by the R.C.H.S., 1891,  
and the GARDEN AND FORESTRY  
EXHIBITION, London, 1893.

Pronounced by all who use it as the  
Cheapest and Most Profitable.

## Cross's Vaporiser

(Nicotine Fumigating Compound).

Equal to any preparation  
in the market, and will be  
found absolutely satisfactory  
in its results.

**16/- per pint**

(To Fumigate 40,000 Cubic Feet).

A Reduction of 20% on the Current  
Price. **WHY PAY MORE?**

To be had through your Seedsman.

**Alex. Cross & Sons, Ltd.**

Horticultural Specialists,

**GLASGOW.**



**SIR JAMES W. MACKEY, Limited,**  
**Seedsman, DUBLIN.**



**The Premier Irish House for Garden Seeds.**

ALL GARDEN SEEDS  
CARRIAGE PAID.

SEED CATALOGUE  
POST FREE.

**SIR JAMES W. MACKEY, Limited,**  
**23 Upper Sackville St., DUBLIN.**

**FOUNDED 1777.**

# LEADING LINES.

IF YOU WANT THE BEST

## SWEET PEAS,

PURCHASE THE COLLECTIONS OFFERED BY

**S. McGREDY & SON.**

### Novelty Collection No. 1.

Saint George, White Spencer, Primrose Spencer,  
Horace Wright, Lord Nelson, Mrs. W. King.

Post free, 3s.

### Novelty Collection No. 2.

Enchantress, George Herbert, Mrs. Collier,  
Nora Unwin, Phenomenal, Queen Alexandra.

Post free, 2s.

No. 1 and No. 2 NOVELTY COLLECTIONS  
complete, 4s. 6d.

## SWEET PEAS

(As classified by National Sweet Pea Society).

THE 26 VARIETIES, OFFERED IN ONE  
COLLECTION, Complete, 7s. 6d.

# SEED POTATOES.

FOR SPROUTING.

FOR PERFECT SEED, PURE STOCKS, and  
RELIABLE VARIETIES, WE HAVE A UNIQUE  
RECORD.

Duke of York, ...	...	...	2s. 0d. stone
Duke of Albany ...	...	...	1s. 6d. „
Myatt's Ashleaf ...	...	...	1s. 6d. „
Puritan ...	...	...	2s. 0d. „
Sir John Llewelyn ...	...	...	1s. 6d. „
Webber's E. White ...	...	...	1s. 6d. „
British Queen, No. 2 ...	...	...	2s. 6d. „
British Queen (Original Stock) ...	...	...	1s. 0d. „

Special prices per cwt.

*The above are the best varieties for Boxing, and orders  
are despatched promptly.*

A CHANGE OF SEED IS THE BEST ANTIDOTE TO THE DISEASE.

NEW SEED LIST for 1908, a Reliable Guide,  
containing only the best varieties, most suitable for  
Irish cultivation, post free.

**SAMUEL McGREDY & SON,**  
PORTADOWN.

# YOU WANT TO KNOW where to obtain good value in FRUIT TREES AND ROSES?

Then you cannot do better than write for our  
Descriptive Catalogue and Guide.

We make a speciality of these, and hold an immense  
stock, well grown and true to name.

**Landscape Gardening** undertaken in any  
part of the country, and advice on all matters connected  
with Fruit Tree or Rose planting gladly given.

Whether you are planting one or many, it is well to  
have the best, seeing that a good tree, well planted, is a  
source of pleasure and profit for a lifetime.

A large stock of Hardy Perennials, Ornamental Trees,  
and Shrubs to offer.

CATALOGUES FREE.

**The BARNHAM NURSERIES,**  
LIMITED,  
BARNHAM, SUSSEX.

**THOMAS  
McKENZIE & SONS, LTD.,**

FOR

GARDEN SEEDS

SEED POTATOES

GARDEN TOOLS

Descriptive Catalogues on application.

212 Great Brunswick Street,  
DUBLIN.

# FRUIT TREES IN ALL FORMS.

Many thousands are .  
being supplied yearly to  
Customers in all parts of  
Ireland, and are giving  
entire satisfaction . .

Carriage is paid on all  
orders amounting to .  
over £2 at Catalogue  
Prices to any Station in  
the UNITED KINGDOM.

Illustrated Catalogue &  
Cultural Instructions .  
sent free on application.



CORDONS, BUSHES,  
PYRAMIDS, and . .  
TRAINED TREES on  
Specially Selected Fruit-  
ing Stocks . . . .

250,000 Trees to select  
from.

Customers ordering .  
through the post may  
rely on receiving as .  
good trees as those per-  
sonally chosen . . .

Silver Medal awarded by the Royal  
Horticultural Society of Ireland for  
Collection of Fruit at Dublin Show,  
1907.

## W. SEABROOK & SONS, FRUIT TREE NURSERIES, CHELMSFORD.



### CROSS'S CELEBRATED GARDEN FERTILISER

UNEQUALLED FOR

POT PLANTS, FRUIT TREES,  
FLOWERS, and VEGETABLES.

MEDALS awarded by the R.C.H.S., 1891,  
and the GARDEN AND FORESTRY  
EXHIBITION, London, 1893.

Pronounced by all who use it as the  
Cheapest and Most Profitable.

### Cross's Vaporiser

(Nicotine Fumigating Compound).

Equal to any preparation  
in the market, and will be  
found absolutely satisfactory  
in its results.

**16/- per pint**

(To Fumigate 40,000 Cubic Feet).  
A Reduction of 20% on the Current  
Price. **WHY PAY MORE?**

To be had through your Seedsman.

**Alex. Cross & Sons, Ltd.**  
Horticultural Specialists,  
**GLASGOW.**



### HEALTHY NURSERY STOCK

Our Nurseries, near Dundrum, are situated  
**600 feet above sea level**

at the base of the Dublin Mountains.

Enjoying the purest air, and growing in  
ideal nursery land, our

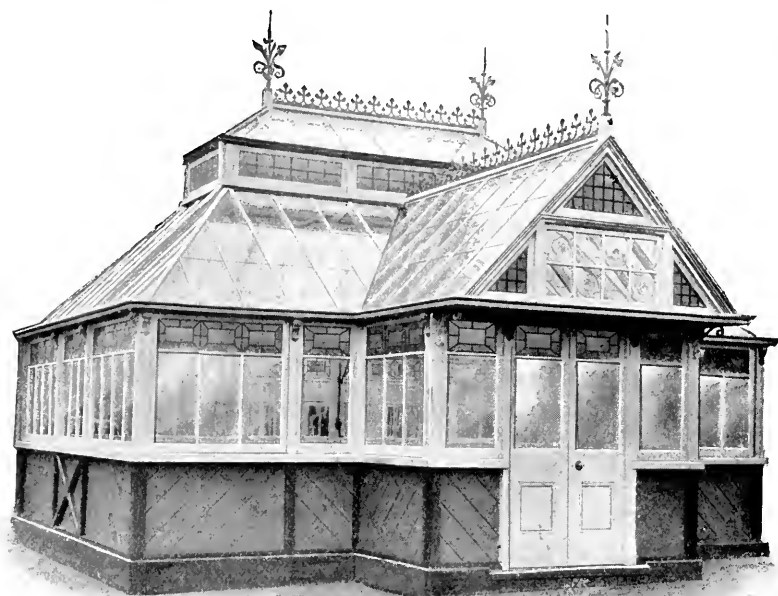
**Plants and Trees are in  
the healthiest condition**

and thoroughly sturdy.

Horticulturists will readily recognise the utility of  
planting such stock for obtaining the best results.

*General Nursery List on application.*

**The Ashbourne Coy.,**  
Nurserymen,  
15 Parliament Street & 51 Essex Street,  
DUBLIN.



# JAMES CRISPIN

& SONS, F.R.H.S.

SUPPLY

ALL CLASSES OF

Horticultural . . .

. . . Buildings .

Heating, Ventilating,

AND

Domestic Supply

APPARATUS.

HEAD OFFICE—

**NELSON ST.,**  
**BRISTOL.**

Awarded Prize Medal, Royal Botanic Society.

## RITCHIE'S Genuine Tested Garden Seeds.

New Illustrated Catalogue  
Now Ready  
Free.

RITCHIE'S

Giant-flowering Sweet Peas.  
No. 1 Collection of 6 large flowering varieties, 1s.

No. 2 " " " 2s.

No. 3 " " " 3s.

All extra large packets.

Our Superfine Mixture

6d. per oz. 5s. lb.

Our Choice Mixture

3d. per oz. 2s. lb.

All Post  
Free.

Sow now  
RITCHIE'S  
NEW TOMATO

"Victoria" per pkt. 1s. & 1s. 6d.

CUCUMBER.—Lord Roberts, per pkt. 6d. & 1s.

Imp. Telegraph " 6d. & 1s.

MELON.—Monro's Little Heath, per pkt. 6d. & 1s.

Royal Sovereign " 6d. & 1s.

89 and 91 Victoria St. Street, Belfast. Tel. 859.

RITCHIE'S

SUPERB COLLECTION OF PEAS,

6 pints best varieties, 3s. 6d.

SUPERB COLLECTION OF BEANS,

6 pints best varieties, 2s. 6d.

SUPERB COLLECTION OF

VEGETABLE SEEDS,

without Peas or Beans,

3s. 6d., 5s., 7s. 6d. & 10s.

All specially selected  
for small gardens.

Carriage  
Paid.

**89 and 91 Victoria St. RITCHIE & CO.**

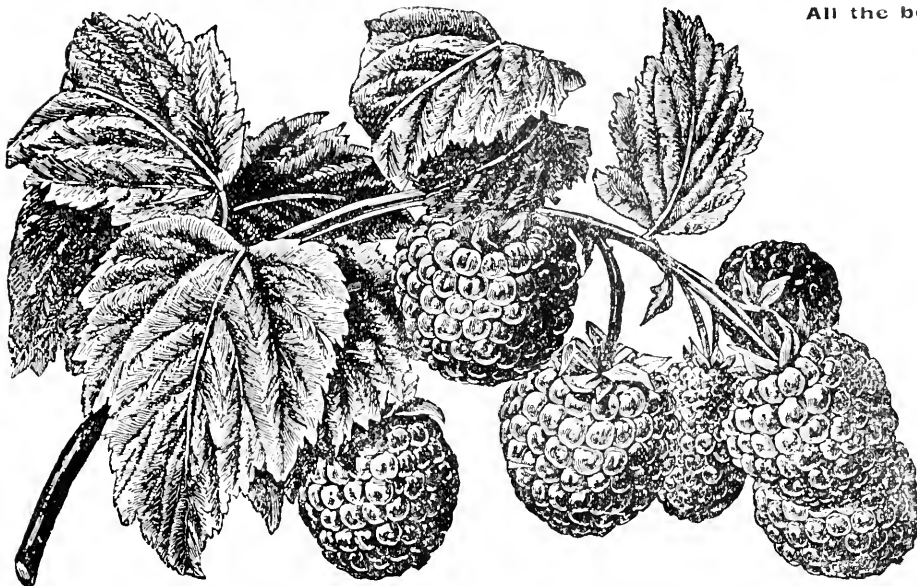
All our Seeds are thoroughly tested at our Nurseries, Bangor, before sending out. Telephone 44.

**SEASON 1908.**

# W. HORNE & SONS, Noted Fruit Tree Growers, CLIFFE, nr. Rochester, KENT.

World-wide Reputation.

All the best varieties in cultivation.



## Raspberry

The Devon, 1/- each 10/-

Superlative,

2/- doz., 3/6 100, 17/-

10,000 lots, 16/- 1,000

Perfection,

2/6 doz., 5/- 100, 20/-

Baumford Seedling,

2/6 doz., 5/- 100, 20/-

Norwich Wonder,

2/- doz., 3/- 100, 13/-

Hornet (Rivers).

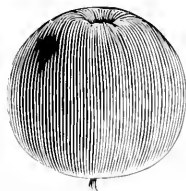
2/6 doz., 5/- 100, 20/-

And many others.

## Apples.

### List of Prices.

	each	per doz.	per 100
Standards for Orchard Planting	2/-	20/-	£7 0
Half Standards feathered ...	1/3	12/-	3 10
Maidens or 1 year ...	6d.	6/-	2 0
2 and 3 year on Paradise ...	1/3	12/-	4 0
1 year on Paradise ...	6d.	6/-	2 0
Trained Espalier, very fine	3/6 & 5/-	—	—



## Whinham's Industry Gooseberry.

Immense quantities of young Trees of this variety have been grown in this country for America. It has proved itself a good cropper, and is now grown all over England. From Morpeth alone, where it was raised by Mr. Whinham, upwards of 200 tons a year on an average are sent away. It is the first to pick green, and travels well when ripe.

2-year Trees	... 3/- per dozen	15/- per 100
3-year Trees	... 3/- "	18/- "

Our prices for most of the leading kinds of  
Gooseberry Trees are:—

	per doz.	per 100
Golden Drop Gooseberry, 2-years	4/-	15/-
Golden Drop Gooseberry, 3-years	4/-	16/-
Berry's Early Kent, 2-years	... 5/-	20/-
Crown Bob, 2-years	... 4/-	15/-
Lancashire Lad, 2-years	... 4/-	15/-
Keepsake, very early, 2-years	... 4/-	18/-

## "May Duke."

Selected 3-year Trees on stems 5/- per doz., 18/- per 100.

"May Duke" is the best of all Gooseberries  
for early work.

## Lee's Prolific Black Currant.

This is the Currant for the Market Garden Man. A very fine sort, and does not get the big bud. Enormous cropper and good clean grower, compact and nice appearance.

1-year Trees	... 2/- dozen	8/- 100
2-year Trees	... 3/- "	14/- "
3-year Trees	... 4/- "	15/- "

## Boskoop Giant (New).

A grand new Currant of most robust growth, bearing very heavy crops of richly flavoured fruit. The bunches are long and the berries very large, sweet and highly flavoured. We have grown it 4 years and have never seen a big bud upon it yet. We strongly recommend this as the best of all Black Currants for Market growing. It is a very strong grower and a good shaped tree.

Strong 1-year Bushes	... 2/6 dozen	12/6 per 100
Strong 2-year Bushes	... 3/6 "	15/- "
White and Red Currant	... —	10/- "

We strongly recommend this Currant as being a very good one. We have had it 4 years and tried it well.



**IMPORTANT TO  
GARDENERS  
and Fruit Growers.**



# "Niquas"

(Registered).

**The most successful Non-poisonous Insecticide  
of the day.**

ITS ADVANTAGES ARE—

Certain death to all Insect Pests.

No possible injury to the most delicate Plant, Flower or Foliage.

It is by far the cheapest Insecticide known. One pint makes ten to twelve gallons for Thrip, Black and Green Fly, etc., whilst RED SPIDER, Mealy Bug, and Scale can be thoroughly eradicated by using "NIQUAS," double or three times the strength required for Fly.

**PRICES**—Pint, 1/-; Quart, 1/9; Half-Gallon, 3/-; Gallon, 5/-; Kegs, each Five Gallons, 22/6; Ten Gallons, 42/6.

Ask for Testimonials, of which some hundreds have been received.

#### SPECIMEN TESTIMONIAL.

From Mr. E. HUBBARD, Gardener to G. Hanbury, Esq.,  
Blythwood, Bunnham, Bucks, May 15th, 1906.

"I have been using your "NIQUAS" Insecticide for some years, and can with all confidence say it is the best I have ever used for Bug, Thrip, Red Spider, American Blight, and for all Insect Pests it has no equal. Also for the destruction of Maggots in Marguerites by dipping.

"I have recommended it to my friends generally."

# LETHORION

IMPROVED METAL

## VAPOUR CONE

FOR FUMIGATING.

**At Greatly Reduced Prices.**

INTRODUCED 1885.



Registered Trade Mark.)

This well-known invention for the entire eradication of all pests infesting vegetation under glass is now manufactured in a more simple and reliable form. The small candle, which will be found packed with each cone, has only to be lighted, and placed on the ground in the centre of the Cone Frame, to produce immediate results. Nothing on the market can equal it for efficacy and cheapness.

Cone No. 3, for a well-secured house of cubic 2,000 to 2,500 feet, 1/- each. Cone No. 2, for a well-secured house of cubic 1,000 to 1,200 feet, 8d. each. Cone No. 1, Carbon, for frames of cubic 100 feet, 6d. each. Full directions accompany each Cone.

Ask for a List of Testimonials, of which some hundreds have been received from the leading gardeners in the Kingdom.

**To be had from all Seedsmen  
and Florists.**

MANUFACTURED BY

**CORRY & CO., LTD.,**

At their Bonded Chemical Works,

**SHAD THAMES, S.E.**

Office & Show Rooms:—13 & 15 Finsbury St., London, E.C.

## INSECT PESTS UNDER GLASS

Do not trouble the Gardener  
who uses the . . . . .

# "Demon"

## FUMIGATING COMPOUND.

Sample Bottle, to Fumigate 4,000 cubic  
feet, with Lamp, 3/- post free.

# "ALPHOL"

A Complete Manure, which,  
if applied during Winter or  
. . . Early Spring, . . .

## Quickly Destroys

SLUGS, WIREWORM, EEL-WORMS,  
CABBAGE MAGGOT, AND OTHER  
INJURIOUS INSECTS INFESTING  
SOILS, MANURE HEAPS, &c. . .

**PRICES** (Carriage Paid)—7 lbs., 2/-; 14 lbs., 3/-;  
28 lbs., 5/-; 56 lbs., 8/6; 1 cwt., 15/-; 5 cwt., £3 15s.;  
10 cwt., £7; 1 ton, £13 10s.

28 lbs. will dress 250 square yards. 5 cwt. will dress 1 acre.

DUPLIN CASTLE GARDENS.

Dear Sirs,

Having carefully tested sample of "ALPHOL" which you sent me in spring, I am pleased to say the results have been most gratifying indeed. Used as a manure for soft-wooded plants the effect was extremely good, producing fine healthy foliage and an abundance of flower. When applied on vegetable crops the result was equally good.

I am of opinion that when there is difficulty in growing carrots, owing to attacks of the maggot and also wireworm, "ALPHOL" will prove a reliable agent in warding off the fly, besides acting as a stimulant to the plants.

When mixed among potting soil, all insect life is at once removed. When wood lice and ants are troublesome, a sprinkling of "ALPHOL" in their haunts quickly destroys them.

I am, dear sir, yours very truly,

JOHN WILSON.

## LAWNS TOP-DRESSED . . WITH . .

# "PREMIER" Lawn Manure

RENEW THEIR VIGOUR

And Retain their Freshness throughout the Year.

TRY IT NOW.

28 lbs., to dress 250 sq. yards, 4/6; 56 lbs., 8/-;  
1 cwt., 15/-; 5 cwt., 70/-

**Boundary Chemical Co., Ltd.,**  
LUTON STREET, LIVERPOOL.

# PLANTING SEASON

EXTENDS TO APRIL.

---

---

30 Gold Medals, 22 Silver Cups for Fruit and Flowers.

---

---

The Largest Stock and Best Variety of every Class of  
FRUIT TREES

CAN BE SEEN AT

**GEORGE BUNYARD & Co., Limited.**

---

---

The 800 kinds comprise the best developed stock in Europe, and total nearly a Million in every form for the Orchard or Garden.

APPLES.	FIGS.	NECTARINES.
APRICOTS.	FILBERTS.	NUTS.
BARBERRIES.	GREENGAGES.	ORANGES and LEMONS.
BLACKBERRIES.	GOOSEBERRIES.	PEACHES.
BULLACES.	GRAPE VINES	PEARS.
CHECKERS.	(Hardy).	PLUMS.
CHERRIES.	GRAPE VINES	QUINCES.
CHESTNUTS.	(For Vineries).	SIBERIAN CRABS.
CRABS (Apples).	LOGANBERRIES.	STRAWBERRIES.
COB NUTS.	MEDLARS.	VINES.
CURRENTS.	MIRABELLES.	WALNUTS.
DAMSONS.	MULBERRIES.	

For full particulars see ILLUSTRATED FRUIT CATALOGUE, 6d. post free, with prices.  
Gratis to Purchasers and Gardeners.

---

---

**GEORGE BUNYARD & Co., LIMITED,**  
**Royal Nurseries, Maidstone, Kent.**

ESTABLISHED 1796.

SEND DIRECT; NO AGENTS OR BRANCHES.

# A FEW OF OUR CONTRIBUTORS.



F. W. MOORE  
[Fruit and Flowers]



Dr. G. H. PETHYBRIDGE  
[Plant Physiology and Diseases]



Professor GEORGE H. CARPENTER  
[Injurious Insects]

## IRISH GARDENING.

A MONTHLY ILLUSTRATED JOURNAL.

IRISH GARDENING is now fairly established as the organ of progressive Horticulture in Ireland. It is, indeed, the only journal entirely devoted to gardening in its special application to Irish conditions.

Its aim is to make gardening popular in every home in Ireland, and to help with timely information and advice those that are attempting to make a livelihood out of gardening.

The highest authoritative writers in the science and practice of Horticulture in Ireland are constant contributors to its pages.

No trouble or expense is spared in the production of the journal to make it bright, attractive, and useful, and its success demonstrates that these characteristics are appreciated.

There is, however, a still wider scope for such a journal in Ireland, and we appeal to the kind services of our many readers to introduce it to such of their friends as are likely to be interested in its contents.



Dr. O'DONEL BROWNE  
[Roses]



A. CAMPBELL  
[Garden Flowers]



WILLIAM TYNDALL  
[Vegetables]



PETER BROCK  
[Fruit]

A SPECIAL OFFER OF

# Eckford's World-famous Sweet Peas.

When growing Sweet Peas grow only the best. A superb display occupies no more space, takes no more time to cultivate, neither does it cost any more than a poor show.

**ECKFORD'S GIANT SWEET PEAS HAVE BEEN AWARDED OVER 120 GOLD AND SILVER MEDALS.**

## SPECIAL POINTS:—

**SWEET PEAS ARE OUR GREAT SPECIALITY:** We are the largest retail growers and largest retailers of Sweet Peas in the world.

**WE CREATED THE SWEET PEA INDUSTRY,** and grow annually over forty acres for Seed.

**BECAUSE WE CREATED THE ENTERPRISE** and because we are the actual growers and right in the business we want your order for **THE BEST SEED GROWN**, it will give you brighter colour, larger flowers, and longer stems.

**WE SELECT TO THIS END AND NOTHING LESS THAN THE BEST CAN BE GOOD ENOUGH FOR YOUR GARDEN,** and the price is right. That Eckford's Seeds are the Best has been conclusively proved by Independent Trials from all sources. We send you a Booklet Free with every order telling you how to grow and show Sweet Peas. **They are only Genuine direct from Wem. We do not Supply the Trade.**

## ECKFORD'S SPECIAL NOVELTY OFFER FOR 1908.

**Mima Johnston**, a charming bright rose carmine, 20 seeds, **1s.**

**H. J. R. Digges**, a bright bold claret shaded maroon, 20 seeds, **1s.**

**James Grieve**, the new nearest approach to yellow, 15 seeds, **1s.**

**Purple King**, a fine bold giant purple, 20 seeds, **1s.**

**May Perrett**, a beautiful new delicate ivory tinged with buff, 15 seeds, **1s.**

**Princess Victoria**, a charming waved giant pink, quite new, 10 seeds, **1s.**

**The Marquis**, a fascinating giant rosy heliotrope, 12 seeds, **1s.**

**White Waved**, a giant wavy pure white, 20 seeds, **1s.**

**Primrose Waved**, a pure primrose waved, giant flower, 20 seeds, **1s.**

**Hannah Dale**, a giant rich maroon, 20 seeds, **1s.**

**Prince Olaf**, a white ground striped clear blue, 20 seeds, **1s.**

**SPECIAL NOVELTY OFFER.**—One packet of each of the above grand novelties for **9s. 6d.**, post free; Half packet of each for **5s.**, post free for cash with order.

## 1908 SPECIAL OFFER OF GIANT SWEET PEAS.

One packet of each of the above grand novelties and twenty-four other charming and up-to-date varieties, thirty-five in all, for **14s.**, post free for cash. If this Collection is more than sufficient for your requirements I shall have much pleasure in dividing it. The thirty-five varieties, half quantities of seed, **7s. 6d.**; or

One packet of each of the above grand novelties and twelve other charming and up-to-date varieties, twenty-three in all, for **11s. 6d.**, post free for cash. If this collection is more than sufficient for your requirements I shall have much pleasure in dividing it. The twenty-three varieties, half quantities of seed, **6s.**, post free for cash.

The above is a most unique offer and quite the best of the season.

Write to us for our **FULL DESCRIPTIVE PRICED CATALOGUE** with Coloured Illustrations. Sent Post Free.

**HENRY ECKFORD,** The Sweet Pea Specialist,  
**WEM, SHROPSHIRE.**

# SUTTON'S RECORD IMPROVEMENTS IN PEAS.



During the long History of our Firm the new strains of Vegetables introduced by us have increased the quantity, improved the quality, and extended the duration of all kinds of garden produce.

In Garden Peas especially, we have by cross-breeding and selection secured such marvellous developments that, under suitable cultivation, Marrowfat Peas of exquisite flavour are now available as table delicacies from May to November, and the handsome pods win Premier Honours on the Exhibition stage.

## SUTTON'S DELICIOUS PEAS

Seven Months  
in the Year.

SPECIAL COLLECTIONS of some of our best varieties, to produce, under suitable conditions of culture, the finest Peas for table or exhibition from May to November.

**Sutton's Early Giant**  
 „ **Duchess of York**  
 „ **Centenary**  
 „ **Superlative**  
 „ **Best of All**  
 „ **Matchless**  
 „ **Perpetual**  
 „ **Selected Gladstone**

2 quarts of each	...	...	<b>40s.</b>
1 quart of each	...	...	<b>21s.</b>
1 pint of each	...	...	<b>11s. 6d.</b>

**SUTTON & SONS,** The King's Seedsmen, **READING.**

BY ROYAL  
APPOINTMENT



TO H.M.  
THE KING.

**STRIKING  
SUCCESS**

# WEBBS' SEEDS

**STRIKING  
SUCCESS**

**GOLD MEDALS AT SHREWSBURY, READING, BIRMINGHAM, &c., IN 1907.**



Section of Webbs' Gold Medal Exhibit at the Great Shrewsbury Show, 1907.

## Webbs' Novelties of Matchless Merit.

Webbs' New Pioneer Pea (early)	per quart	3/-	Webbs' New Epicure Melon	-	per pkt.	2/6
Webbs' Senator Pea (second early)	„	3/-	Webbs' New Volunteer Beet	-	„	1/-
Webbs' Eclipse Runner Bean	-	2/6	Webbs' New Emperor Tomato	-	„	1/6
Webbs' Early Mammoth Cauliflower	per pkt.	1/6	Webbs' Kinver Mammoth Broad Bean	per quart		2/6
Webbs' New Prizewinner Carrot	per oz.	1/-	Webbs' New Champion Prize Leek	per pkt.		1/6
Webbs' Seld. Ailsa Craig Onion	per pkt.	1/6	Webbs' New Colonist Potato (early)	per peck		4/-
Webbs' Royal Favour Cucumber	„	1/6	Webbs' New Guardian Potato (second early)	„		3/6

*For full particulars, see WEBBS' SPRING CATALOGUE, post free, 1-. Gratis to Customers.*

# WEBB & SONS, WORDSLEY, STOURBRIDGE.

## Answers to Correspondents—contd.

**MANURING FRUIT TREES** ("Sligo Fruit Grower").—It is difficult to lay down hard and fast rules, as so much depends upon soil and the age and variety of trees. In general terms, if the tree is making only 3 to 6 inches of growth in length in the year, it requires generous feeding; if from 6 to 12 inches it requires some feeding; but if making from 12 to 18 inches the soil is most likely quite rich enough. If you deem feeding necessary, apply at once (better if you had done so in the autumn) 4 ozs. of basic slag and 1 oz. kainit per square yard as far as the roots extend. Then, in March again apply 2 ozs of superphosphate and 1 oz. of sulphate of ammonia per square yard which latter dressing may be repeated later if the trees are heavily set with fruit. Soot and bonfire ashes are excellent for fruit trees, especially apples. These manures are not to be dug in, as digging will injure the delicate surface feeding-roots, but the hoe may be used with good purpose.

"R. M. P."—Your queries were referred to Mr Miles, and he replies—(1). If violets are well bunched and carefully packed there is a good market for them in the cities and towns of England, Ireland and Scotland. The more ground you have in this flower the better average price you will realise through the season, as you will have more flowers to send out in the early months,—i.e., October to end of December. (2). Kindly read article in January number of IRISH GARDENING carefully. (3). In a general way florists give 1/6 per dozen for ordinary violets and a higher figure for Luxonne and Princess of Wales, &c., subject to agreement. Prices are through the season the same. (4). Also I think explained in the article. *N.B.*—In every business the grower has to make his own market, it may be local or it may be a

long way from home. If he gives personal attention in every detail he will find a good opening for violets. I think myself that both the Irish Agricultural and the Congested Districts Board could help in this matter through their officials attending the violet markets occasionally, and sending printed forms of instructions to those forwarding inferior flowers (they are, I know, in some cases taking the initiative). Irish flowers are far superior to the French, because they are sweetly scented, and should arrive perfectly fresh when opened.

**SEAKALE** ("G. H.").—Seakale thrives best in a deep, rich, sandy loam dug to the depth of two spits. Plants may be raised from seed sown in April in drills 2 inches deep and 15 to 18 inches apart. Thin out to 12 inches apart. Water well in dry weather. Plants may be also raised from root cuttings. Side roots removed from plants lifted in autumn about 1½ inch thick should be cut into lengths of 4 to 5 inches, distinguishing the top from

WHEN IN BELFAST, LUNCH OR DINE AT

THE OLDE CASTLE,

CASTLE PLACE.

—The Finest Restaurant in Ireland.—

Telephone 1250. Wires: "Diet, Belfast."

# ROYAL IRISH ROSES.

By Appointment to



HIS MAJESTY THE KING.

## HUGH DICKSON, Royal Nurseries, BELFAST.

ROSES for

BEDS

WALLS

WILD GARDEN

ARCHES

MASSING

WEEPING

PERGOLAS

SHRUBBERY

CREEPING, and

ROSES for any and every purpose for which a Rose can be employed. Thousands of strong, vigorous and healthy Plants in all the best and newest varieties.

Descriptive Catalogues on application. . . Special quotations for large quantities. . . Please carefully address as above.



SPECIAL  
NOTICEFOR  
1908.

IF YOU WANT

# REALLY GOOD SWEET PEAS

AT MODERATE PRICES, send to

**MR. ROBERT SYDENHAM, TENBY STREET, BIRMINGHAM.**

No Flowers give so much cut bloom at so little cost and trouble as Sweet Peas.

## SPECIAL COLLECTIONS FOR 1908.

The seeds in these Collections are all carefully hand picked; only plump round seeds sent; all small, poor, or doubtful ones are taken out, which I do not think is done by anyone else in the trade; eighty to ninety per cent. guaranteed to germinate if treated as instructions sent with each collection.

Each Packet in Collections 1, 2 and 3 contains 50 plump round selected seeds.

For fuller descriptions of the varieties mentioned in this list and all other known varieties, I refer my friends to my little book "ALL ABOUT SWEET PEAS," revised and corrected to end of 1907. Price 6d.

ALL INTERESTED IN SWEET PEAS SHOULD BUY THIS LITTLE BOOK BEFORE PURCHASING THEIR SUPPLY FOR THE SEASON; AND MAY DEDUCT THE 6d. PAID FOR IT FROM THE FIRST 5s. SENT FOR SEEDS.

**COLLECTION No. 1—TWELVE USEFUL VARIETIES, 1/6.**—Bolton's Pink, large salmon pink; David R. Williamson, rich medium blue; Gladys Unwin, pale pink, slightly darker edge; Lovely, pale pink; Mrs. G. Higginson, pale French grey; Navy Blue, deep violet blue; Prince Edward of York, rosy salmon standard, lighter wings; Prince of Wales, rich rosy crimson; Sadie Burpee, white; Salopian, deep mulberry red; Scarlet Gem, pale scarlet; Triumph, rosy salmon and bluish.

**COLLECTION No. 2—TWELVE BETTER VARIETIES, 1/9.**—Agnes Johnston, salmon pink and buff; Black Knight, bronzy chocolate; Blanche Burpee, white; Countess Spencer, large pale pink wavy standard; Dainty, white, with slight pink edge; Duke of Westminster, rosy violet; Evelyn Byatt, orange and crimson bicolor; Flora Norton, rich sky blue; Janet Scott, pale pink, flushed buff; King Edward VII., rich crimson; Miss Willmott, salmon red; Romolo Piazzi, rich blue.

SINGLE PACKETS OF ANY VARIETY IN COLLECTIONS Nos. 1 and 2, 2d. each; COLLECTIONS Nos. 1 and 2, when bought together, will be 2/6, and a packet of "Coccinea" and "Horace Wright" will be added free of charge.

**COLLECTION No. 3. THE BEST TWELVE VARIETIES, 1/9.**—Dorothy Eckford, white; George Herbert, pale carmine standard, lighter wings; Helen Lewis, syn. Orange Countess, rich wavy orange standard, rosy wings; Helen Pierce, marbled or grained blue; Henry Eckford, orange scarlet; Hon. Mrs. Kenyon, pale primrose; Jeannie Gordon, carmine and buff; Lady Grisel Hamilton, pale lavender; Mrs. Walter Wright, rich lavender blue; Paradise, rich pink, the best of the Countess Spencer type; Queen Alexandra, the best crimson scarlet; Sybil Eckford, creamy buff, flushed pale pink.

SINGLE PACKETS OF ANY VARIETY IN COLLECTION No. 3, 3d. each, OR ANY SIX FOR 1/3. COLLECTIONS Nos. 2 and 3 may be had together for 3/4, and a Packet of "Phenomenal" and "Earliest of All White" will be added free of charge.

## SPECIAL PRICE FOR THE THREE COLLECTIONS, 4/-

and when bought together, the four added packets and a packet each of the four best striped varieties, viz.:

Jessie Cuthbertson, Mrs. J. Chamberlain, Marbled Blue and Unique,

will be added free of charge, making 4/1 of the very best varieties in cultivation, at an average cost of about one penny a packet.

PRICE OF EITHER OF THE EIGHT ADDED VARIETIES, IF WANTED ALONE, 2d. EACH.

**COLLECTION No. 4 THE TWELVE NEWEST VARIETIES, 4s., or what I consider the Best of the Newest.** The number of seeds in these packets varies, the quantities are stated in black figures after each name. Agnes Eckford (15), soft bluish pink, 3d.; Earl Cromer (20), mulberry, 4d.; Frank Dolby (20), lavender, 4d.; Herbert Smith (25), orange bicolor, 6d.; Lord Nelson (20), syn. BRILLIANT BLUE, dark blue, 4d.; Miss Millie Maslin (25), rich crimson, 4d.; Mrs. Hardcastle Sykes (20), bluish pink, 6d.; Mrs. Collier (20), new primrose, 4d.; Nora Unwin (20), white, 4d.; Primrose Spencer (10), syn. or improved CLARA CURTIS, grand new wavy primrose, 6d.; Queen of Spain (20), salmon pink, 4d.; White Spencer (10), syn. or improved ETTA DYKE, the newest, best, and largest wavy white yet raised, 6d.

COLLECTIONS Nos. 3 and 4 may be had together for 5/- and a packet of the newest and best Everlasting Pea, WHITE PEARL, free of charge.

Any variety in Collection No. 4 may be had at the prices mentioned after each name, or six packets at the price of five, or buyers may select their own varieties from either Collection at prices mentioned, and have 3s. worth for each 2s. 6d., or six packets of any variety at price of five.

PRIMROSE SPENCER and WHITE SPENCER may be had in Packets of 25 seeds, 1s. each, or six packets for 5s.

## SPECIAL PRICE FOR THE FOUR COLLECTIONS, 7/-

And in addition, a packet of MRS. CHARLES FOSTER and JOHN INGMAN seedlings will be added, and a PRIZE OF £5 given to the first who can and will send me a thousand seeds of either that are true and guaranteed to come true the following year.

CHOICE MIXED SEEDS of most of the above, and other varieties, 2d. per packet of about 100 seeds; 6d. per ounce of about 350 to 400 seeds; 1s. 6d. per 1/2 lb., or 5s. per lb. of about 5,000 to 5,500 seeds.

All other seeds equally cheap and good.

Full List post free on application.

PLEASE MENTION THIS PAPER.

# Pennick's Delgany Nurseries.

Specialite—Himalayan Rhododendrons



Flowering Shrubs, Fruit, Roses.

400 Feet Elevation.

## Answers—continued.

the bottom by horizontal and sloping cuts respectively. Place bundles in sandy soil with tops level with surface of soil. Protect from frost, and when sprouted remove all but two or three of the best sprouts on each cutting. Plant out, and when fully established remove all but the

strongest sprout on each. One year old plants should be planted out in March or April in trenches 3 feet wide, with the crowns 2 feet apart and 2 inches under the surface. To blanch cover with ashes, seakale pots, boxes, or even fine, light soil. For early forcing, strong crowns can be lifted in autumn and placed in boxes under greenhouse stages or where they can be kept warm and moist in darkness. Liquid manure, nitrate of soda and also salt are of value to these plants during the growing (summer) period.

GREENHOUSE DECORATION IN SPRING—A "Mere Amateur" asks for a suggestion as to what easily-grown plant he may select in order to make a show in the spring. Try *Doronicums*. Raise the plants from the border (or get them from a nursery), divide the clumps, select only those having abundance of young buds, and plant them closely in a few large pots. Very little soil will be required. They will make a fine display later. The same correspondent wants the name of a small, yet reliable, work in growing fruit trees in pots. "The Culture of Fruit Trees in Pots" by Josh. Brace, published by John Murray, London, may be found useful.

SWEET PEAS IN POTS.—"A Lover of Sweet Peas" has no garden, as she lives in a town, but wishes to know if she can grow these flowers under the circumstances. Certainly. Get "5-inch" pots, cover the drainage hole with a few broken "corks," and fill up the pots with good loam, well intermixed with well-decayed manure. Firm down. Plant about four or five seeds in the soil. On germination give the seedlings air, light and water. The plants may be transferred to a larger pot later, or single plants may be grown in the 4-inch sizes. Stake with twigs. If the plants tend to grow too tall pinch out the terminal buds. As to sorts giving particular colours consult catalogues.

Without doubt the most popular flowers at the present time are

## **SWEET PEAS,**

and in compiling our

# Gem Collections of Giant-Flowered Varieties

we believe we have succeeded in providing for our customers a selection of sorts which are unrivalled in range of colour, size of flower, and general good qualities. The two collections, A and B, embrace the finest collection of twenty-four sorts ever offered at popular, cheap prices.

### Gem Collection A

comprises the following 12 sorts, viz.—

Dorothy Eckford, Countess Spencer (re-selected), John Ingman, Helen Lewis, King Edward VII., Scarlet Gem, Hon. Mrs. E. Kenyon, Black Knight, Miss H. C. Philbrick, Romola Piazzani, Agnes Johnson, Navy Blue.

Collection 1A—200 seeds of each of the above, 4/6

Collection 2A—100 " " " 2/9

Collection 3A—50 " " " 1/6

Collections No. 1A and No. 1B together for 7/.

### Gem Collection B

comprises—

Dainty, Phenomenal, Mrs. Walter Wright, Bolton's Pink, Duke of Westminster, D. R. Williamson, Janet Scott, Gladys Unwin, Prince of Wales, Coccinea, Jeanie Gordon, Lady Grizel Hamilton.

Collection 1B—200 seeds of each of the above, 3/6

Collection 2B—100 " " " 1/9

Collection 3B—50 " " " 1/6

Collections No. 2A and No. 2B together for 4/.

Collections No. 3A and No. 3B together for 2/6.

For full descriptions of these and all other vegetable and flower seeds see our new illustrated Catalogue, post free on application

**Alex. Dickson & Sons, Ltd.,** 55 Royal Avenue, BELFAST.  
61 Dawson Street, DUBLIN.

# CANARY GUANO

FOR GREENHOUSE & GARDEN  
THE BEST IN THE WORLD.

Sold by Seedsmen and Nurserymen.  
For full directions for use and all particulars, write to  
The Chemical Union, Ltd., Ipswich

Will Subscribers whose subscrip-  
tions are now due please send re-  
mittances to Manager, IRISH  
GARDENING, 53 UPPER  
SACKVILLE STREET, DUBLIN?

## IRISH QUEEN.

The Best Potato ever  
Grown in Ireland . .

No Disease. No Chats. Superlative  
Cooking Quality.

See Reports in my Catalogue from Farmers and  
the Department of Agriculture who have  
grown it. Post Free.

ONLY ONE PRICE.

Ask me or your local Seedsman for prices, &c.  
The Trade invited to sell

## IRISH QUEEN.

See my Catalogue for my New First Early.  
All other varieties at low prices for reliable  
North of Ireland Seed.

**WESLEY FORBES,**  
GILNAHIRK, KNOCK, BELFAST.

## NEW GIANT-FLOWERED

# SWEET PEAS.

## Edmondson's Eblana Collections

of the 25 Best New Giant-Flowered Sweet Peas.

25 Varieties, 40 Seeds each	...	...	...	1,000 Seeds for	1/6
25 do. 80 do.	...	...	...	2,000 do.	2/6
25 do. 175 do.	...	...	...	4,375 do.	5/-

The "Minor Eblana" Collection ... 12 Choice Sorts, 1/-  
Eblana Mixture—1 quart, 5/-; 1 pint, 2/6; half-pint, 1/6; per oz., 3d.  
Giant-Flowered Mixture per lb., 5/-; half-lb., 2/6; per oz., 6d.

**EDMONDSON BROTHERS,**  
Seedsmen, 10 Dame Street, DUBLIN.

## Catalogue Reviews.

TAIT'S ANNUAL LIST, 1908.—This is a carefully compiled catalogue, in which the plants are shortly but succinctly described. It includes vegetables and flowers, and very clear cultural directions are given in each class. It is nicely illustrated. We reproduce (page 28) from this catalogue one of the pictures—that of the relatively new giant-flowered poppy from Thibet (*Meconopsis integrifolia*), “the most striking introduction of recent years.” We happened to pay a visit to the gardens of Sir J. Gore-Booth, Bart., at Lissadell about a week ago (16th Jan.), and saw a plant of this poppy in full bloom in the open ground. It is a decorative subject, and we draw our readers' attention to its usefulness.

ECKFORD'S NOVELTIES, 1908.—Sweet pea novelties of course! and a very pretty and a very interesting catalogue it is. It is here stated that last year the ground at Wem under cultivation for seed alone (of sweet peas) exceeded 40 acres. The novelties of 1908, 1907 and 1906 are fully described, and several of them illustrated. All growers of sweet peas should secure this booklet.

WALSH'S SEEDS, 1908, is a large-paged catalogue of 32 pages, illustrated with half-tone blocks and handsomely got up in a strikingly embossed cover. The seeds offered for sale are stated to be very carefully tested as to purity and vitality “before leaving the premises.” This is very important to growers. The compiler recommends “Irish Queen” (of which an illustration is given) for exhibition purposes, and says that “the Laxtonian” is the finest dwarf pea “ever introduced.” Cultural directions are given of each kind of vegetable catalogued. An extensive descriptive list of popular flower seeds is given, including a good collection of sweet peas.

SPRING CATALOGUE OF BROWNE, THOMPSON & CO.—We have on a previous occasion referred to the careful and useful compilations of this Cork firm. The catalogue is neat, clearly printed, and suitably illustrated, both as regards the vegetable and flower section. Amateurs will find the latter most useful, as it gives all the particulars they want to know after each variety. There are as many as eight pages devoted to the month's work in the vegetable and flower garden. The section on Novelties, of recent introduction (pp. 24-27), might well be consulted by gardeners.

JONES' SELECTED SEED, 1908.—A neat booklet of 28 pages, in which all the more important vegetables and flowers are descriptively listed. Mr. Jones is himself an enthusiastic gardener and a specialist in certain classes of plants (with dahlias, we believe, he ranks first as an exhibitor in Ireland). Remembering his exhibition displays of cut sweet peas, we turned to pages 15 and 16 to see what he recommended for such purposes, and we advise our readers to consult his lists if they intend to compete in sweet pea classes at the forthcoming show. The catalogue is limited to seeds, and contains only references to fruit trees, roses and bedding plants, for which the Gowran Nurseries are well known. Mr. Jones offers his services to any correspondent who is in any cultural difficulty.

DRUMMOND'S GARDEN SEEDS, 1908, is a handsomely-produced catalogue of 110 large pages, printed on plate paper and freely illustrated with photographic reproductions of garden plants. It is a catalogue that will interest gardeners and appeal to everyone concerned in growing vegetables and flowers. A large number of the illustrations appear to have been specially engraved for this book. Special attention is drawn to the Scarlet Emperor runner bean, to “Quite Content” marrowfat pea, and the new melon “Eminence.”

## May we ask a favour of you?

Will you kindly pass this on to a friend with the suggestion that he or she should become a Subscriber to “Irish Gardening”?

### SUBSCRIPTION ORDER FORM.

190

Please enrol me as a Subscriber to “IRISH GARDENING” for twelve months. Remittance for Subscription and postage (3/-) is sent herewith.

Name

Address

Post Town

# WALSH'S GIANT FLOWERING SWEET PEAS

"THE BEST THAT GROW."

EXHIBITION COLLECTION,

containing 21 Best Varieties, recommended by N. S. P. S.

46 POST FREE.

## POPULAR COLLECTIONS.

No. 1 containing	25 selected varieties, about 1250 Seeds,	-	1/-
No. 2	25 " " " "	2000	1/6
No. 3	25 " " " "	4000	2/6

POST FREE.

Illustrated Seed Catalogue and Guide free on application.

# WALSH'S ROSES AND FRUIT TREES.

EXTRA STRONG, HARDY, WELL-ROOTED,  
TRUE TO NAME.

Hundreds of Thousands to select from.

*Descriptive List Free.*

**JAMES WALSH,** Seedsman &  
Nurseryman,  
**PORTADOWN.**

## The Planting Time

A Visit to

Messrs. Watson & Sons' Nurseries,  
Clontarf,

**W**ILL convince intending planters that there is no need to cross the Channel for roses, fruit trees, or indeed most nursery stock, which formerly was not to be obtained satisfactorily in Ireland. Messrs. Watson have been steadily increasing their premises, and now, with their large nurseries, are in a better position year by year to supply all wants in home-grown stuff, at prices and of quality which will compare favourably with any reliable grower. Long-distance carriage is saved to their patrons, and, what is perhaps more important with goods of a perishable nature, owing to their nurseries being situated in the metropolis the most direct routes are available to the provinces, with the result that the trees arrive in perfect condition, and are replanted before they have time to suffer. Messrs. Watson will attend to postal or telephone inquiries from those too distant or unable to spare time to visit the nurseries and see for themselves. The entrance to the nurseries is only fifteen minutes tram drive from Nelson's Pillar.—*Daily Express.*

*New 40-page Catalogue free on request.*



# JONES, F.R.H.S.,

Has to offer this planting season a really splendid lot of

over 25,000 Fruit Trees,  
in Apples, Pears, Plums, &c., &c. True  
named, healthy, transplanted, well-shaped  
trees, at very low prices. Equal value  
not to be had elsewhere in Ireland.

*Lists and Quotations per return post.*

Large Stocks of Bush Fruit, Roses, Shrubs, and  
Forest Trees at equally reasonable rates.

**JONES, F.R.H.S.,**

FOREST LODGE  
NURSERIES,

**GOWRAN, Co. Kilkenny.**

Have you a Garden?

Sow **DRUMMOND'S**

Celebrated **SEEDS.**



PRICED CATALOGUES FREE.

**W. DRUMMOND & SONS, Ltd.**

Nurserymen and Seedsman,

57 & 58 DAWSON STREET,

DUBLIN.

## Salva-Fruta.

FOR SPRAYING FRUIT TREES IN WINTER.

All Fruit Trees should be treated with this preparation ; it effectively

destroys every vestige of MOSS, LICHEN, AND GREEN SLIME,

as well as the eggs of MOTHS, APHIDES, RED SPIDER, &c.

Salva-Fruta is a Powder, and is easily dissolved in cold water.

It is put up in canisters of 1lb., 2lb., 4lb., and 10lb. each.

Full Directions and Prices can be obtained from the Manufacturers,

**The United Alkali Co., Ltd.,**  
GREENBANK WORKS,

ST. HELENS, LANCASHIRE.

Or from all the principal Seedsman in the United Kingdom.

# ROWAN'S

**EARLY POTATOES** for Sprouting or Boxing.

**PURITAN, SHARPE'S EXPRESS, MAY QUEEN,**  
2/- 2/- 2/- per stone.

**PEAS**—First Sowing—Bountiful, 1/6; Ameer; 1/6 per qt.

**BEANS**—**Kidney**—Osborne's forcing, 2/- per qt.  
" **Broad**—LONG POD EARLY, 8d. per qt.

**CARROT** (For Frames) French Horn, 6d. per oz.

**CUCUMBER**—**Telegraph**—1/- per pkt.

**ONION**—**AILSA CRAIG**—Best for Early Sowing in boxes, 6d. per pkt.

**RADISH**—Crimson Giant Forcing—per oz. 6d.

**SPINACH**—New Giant thick-leaved—pint 1/-, oz. 3d.

**TOMATO**—Selected—**LISTER'S PROLIFIC**, 6d. & 1/- per qt.

**SWEET PEAS**—LATEST NOVELTIES

*Catalogue of Seeds for 1908 post free on application.*

TELEPHONE 672.

**M. ROWAN & Co.,**

Seed, Bulb, Plant Merchants,

51 & 52 CAPEL ST.,

# DUBLIN.

## WOOD TRELLIS ROSE PILLARS.

Unequalled in all respects for the cultivation of climbing roses.

### No. 2.

Height of ribs 8 ft.  
,, over all 10 ft. 8 in.  
Made with eight vertical wood ribs.

### PRICES—

Each ... **5/3**  
each  
Three or more **4/9**  
Six or more **4/6**

### No. 3.

Height of ribs 8 ft.  
,, over all 10 ft. 8 in.  
Made with four vertical wood ribs.

### PRICES—

Each ... **4/9**  
each  
Three or more **4/3**  
Six or more **4/-**

Taller Pillars, 6d. per foot extra.

Painted two coats Carbolineum.  
**Carriage paid to Ireland.**

Heavier Pillars in other designs, up to **26/-**  
Send for our list of special Rose Trellises, Arches, Pergolas, Arbours, all made in wood, post free.

**WALTERS & CO.**

(DEPT. A.),

16 Water Lane, Great Tower Street,  
**LONDON, E.C.**

## POTASH MANURES.

**ALL CROPS REQUIRE POTASH.—**

Especially Potatoes, Roots, Flax, Grass, Clovers, Peas, Beans and Onions.

The best way to supply Potash for Crops is to apply Kainit in Winter or Muriate of Potash, or Sulphate of Potash, in Spring or at seed time to the Soil.

Leaflets and Pamphlets may be had on application to

**GEORGE RICE,** MANAGER, AGRICULTURAL OFFICES,  
15 Parliament Street, and  
50 Essex Street, DUBLIN.

Potash Manures may be had from all Manure Dealers.

## "NICOTICIDE" Fumigant.

Half-gallon Tin, containing sufficient for 166,000 cubic feet	..	60/-	} Car. paid.
No. 1 size Tin—1 pint	..	40,000	
No. 2 size Tin— $\frac{1}{2}$ pint	..	20,000	
No. 3 size Bottle—6 oz.	..	12,000	
No. 4 size Bottle—4 oz.	..	8,000	
No. 5 size Bottle—1 oz. (sample)	..	2,000	10d.

### FUMIGATORS,

1/- each, for 5,000 cubic feet.

**NICOTICIDE PLANT WASH**  
For Outdoors.

$\frac{1}{2}$  Pint, 12/-; Pint, 2/-;  
Quart, 3/6;  $\frac{1}{2}$  Gallon, 5/-;  
Gallon, 10/-



Gow's Slug and Wire-  
worm Destroyer,  
Lawn Sand, Daisy  
Eradicator,  
Tobacco Powder and  
Quassia Extract.

Sold in 6ds., 1/-, also 2/6  
Tins and larger sizes.

INSIST ON YOUR SEEDSMAN  
SUPPLYING THEM.

**GOW'S WINTER ALKALI TREE WASH** for destroying Woolly  
Aphis, Scales, Lichen Moss and Apple Snickers, &c. Half-gallon 5/-,  
carriage paid. One gallon will make 20 gallons solution.

**HUNTER & COW, 46 Thomas Street, LIVERPOOL.**

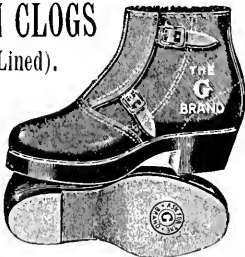
## OUTDOOR OR GARDEN CLOGS

Grain Leather Uppers (Felt Lined).

Made in  
Men's, Women's, Youths'  
and Girls' Sizes.

Keenest Price, 3/6 Post Paid.

State size of ordinary  
boot worn.



This is the most useful part of your clothing. Damp ground gives  
rheumatism to many.

SOLE MAKER—

**JOHN GREENLEES, 4 Wellington Street, GLASGOW.**

FOR . . .

## GARDEN

AND

## PLEASURE

## GROUND

ESTIMATES FREE.

# KENNAN & SONS, Ltd.,

Fishamble  
St., DUBLIN.

IRON FENCING

ORNAMENTAL  
HURDLES

ESPALIERS

FRUIT WALL WIRING

TRAINERS

BORDER RAILS

PERCOLAS

## The PARACON PEA TRAINER (PATENT).

SUITS any length of row. Easily put up or  
taken down. An ornament in the garden,  
keeping the growing Peas in neat straight lines.  
No trouble, always ready and will last for  
years with only a few pence outlay for any  
necessary renewal of training wire.

Excellent for Sweet Pea.

What users say in 1907:—

"I am delighted with my Pea Trainers,  
they are just splendid."—BAUFR.

"The Trainer worked very well with me  
and kept the Peas neat and tidy."—DUBLIN.

"Send me another Pea Trainer same as I  
had last year."—REMARKS.

Prices in sets complete:—

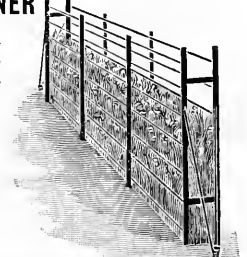
12 ft. row 4 ft. high	7 6, 5 ft. high	9 6 12 ft. row
18 .. 4 ..	9 6, 5 ..	12/- 18 ..
24 .. 4 ..	11 6, 5 ..	14 6 24 ..
30 .. 4 ..	13 6, 5 ..	17 6 30 ..

Carriage paid to nearest station.

Write for fuller particulars.

**PARACON PEA  
TRAINER CO.,**

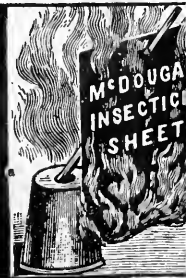
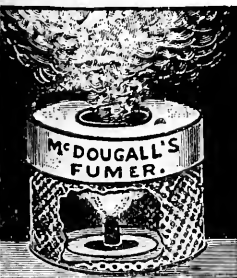
Bridge St., Banbridge  
Co. Down.



# FUMIGATE WITH McDOUGALL'S "FUMERS" or "SHEETS"

SAFE—HANDY—EFFECTUAL—ECONOMICAL.

STOCKED BY ALL SEEDSMEN.





## Miscellaneous Section.

**"XL ALL"** Vaporising Compounds and Insecticides (non-poisonous and poisonous). **"XL ALL"** Weed Killer and Fertilizer, New Green Sunshade, &c. **"XL ALL"** Specialities are used and sold by Nurserymen, Seedsman and Florists all over the United Kingdom. Manufacturer will send Price List by return, and give address of nearest Agent. Poisonous preparations only sent direct when Agent cannot supply. Be sure you get the original inventions—**"XL ALL."**

G. H. RICHARDS,  
234 BOROUGH, LONDON, S.E.

### IRISH SEED POTATOES BEAT SCOTCH AND ENGLISH.

Surrey Education Committee's Trials, 1907.

<b>"DUCHESS OF CORNWALL,"</b> yields per acre.				
Surrey Seed	...	2 tons 16 cwt.	2 qrs.	
Scotch	"	7	"	1 2
<b>Irish (Williamson's)</b>	<b>19</b>	<b>16</b>	<b>"</b>	<b>0</b>
<b>"Conquering Hero"</b>				
(Williamson's)	21	"	9	"
				0

Illustrated Pamphlets Free.

J. F. Williamson, F.R.H.S., Seed Potato Specialist,  
Mallow, Co. Cork.

### Vegetable, Flower, and Farm Seeds

From the Finest Stocks and Strains in Cultivation.

Catalogue Post Free.

### Browne, Thompson & Co.,

Seedsman, CORK.

Telegrams—"THOMPSON, SEEDSMAN, CORK."

### COUNTY LONDONDERRY COMMITTEE OF AGRICULTURE AND TECHNICAL INSTRUCTION.

#### HORTICULTURE AND BEE-KEEPING.

THE above Committee require the services of a qualified Instructor in Horticulture and Bee-keeping. Salary £2 per week, which includes cost of maintenance. Applications, accompanied by copies of testimonials, should be forwarded to the undersigned not later than the 6th February, 1908.—T. B. ADAMS, Secretary, County Courthouse, Londonderry.

### WALSH'S GIANT-FLOWERING SWEET PEAS.

Cheapest offer in the Trade. All tested (unequalled). No. 1 Collection, containing 25 varieties, 1,250 Seeds, 1s., post free; No. 2 Collection, containing 25 varieties, 2,000 Seeds, 1s. 6d., post free. Catalogues free. JAS. WALSH, Seedsman, Portadown.

THE JOYS OF GARDENING are realized by using "The Ashbourne" Garden Fertilizer. The most concentrated and Complete Manure for Horticultural purposes. One and a half times as powerful as the largely advertised Garden Fertilizers in commerce—therefore more economical. Prepared on the most up-to-date methods. Of general uniform quality, highest solubility, with constituents correctly balanced for promoting a healthy, vigorous plant growth—per stone, 2s. 6d.; per cwt., 14s. 6d. THE ASHBOURNE COMPANY, Nurserymen, Parliament Street, Dublin.

### Begonias (Single).

Exhibition Strain . .

Finest in Cultivation.

Enormous Flowers. Top-size Tubers in  
Separate Colours.

2/6 doz. 18/= 100.

### Geranium Paul Crampel.

Finest Scarlet Bedder.

Immense Blooms . .

Strong-rooted Cuttings for Potting on.

3/6 doz. 24/= 100.

W. J. WORRELL, Nurseryman,  
LEAMINGTON.

*To Lovers of their Gardens*

You cannot do better than consult our Illustrated Guide for Amateur Gardeners, 164 large 4to pages, 190 illustrations, 2 beautifully coloured plates, and many cultural hints.

In it you will find catalogued every description of Vegetable and Flower Seeds, all of the finest quality, and at moderate prices.

It deals also largely with Nursery Stock—Fruit Trees, Roses, Plants, etc.—in fact with Everything Required for the Garden.

Our reputation has been built up on the QUALITY of the seeds and plants we sell.

Will be sent to all intending purchasers on receipt of 3d. to cover actual cost of postage.

**Daniels Bros. Ltd.**  
BY APPOINTMENT TO H.M. THE KING  
**NORWICH.**

# THE PREMIER IRISH HOUSE FOR GARDEN SEEDS.



**SIR JAMES W. MACKEY, LTD.,**  
**23 UPPER SACKVILLE STREET, DUBLIN.**

ALL GARDEN SEEDS  
CARRIAGE PAID.

FOUNDED 1777.

SEED CATALOGUE  
POST FREE.

ROYAL HORTICULTURAL SOCIETY OF IRELAND.

# GRAND SPRING FLOWER SHOW,

Royal University, 8th and 9th April, 1908.

(By kind permission of the Senate.)

Schedules of Spring and August Shows, post free on application to—

WALTER KEATING, Junr., Secretary,

5 Molesworth Street, Dublin.

## RITCHIE'S Genuine Tested Garden Seeds.

New Illustrated Catalogue  
Now Ready  
Free.

RITCHIE'S

Giant-flowering Sweet Peas.

No. 1 Collection of 6 large flowering varieties, 1s.

No. 2 " " " 2s.

No. 3 " " " 3s.

All extra large packets.

Our Superfine Mixture

6d. per oz.

Our Choice Mixture

3d. per oz.

All Post  
Free.

89 and 91 Victoria St.

Plant now  
RITCHIE'S  
Gold Medal Strain  
BEGONIAS.

Single, Mixed,	2/- doz.,	15/- 100.
Double	" 3/6 "	20/- "
Gladiolus	Brenchleyensis	10d. doz., 6/- 100.
"	Lemoine's Hybrids	10d. " 6/ "
"	Childsii	" 1/- " 8/- "

Street, Belfast. Tel. 859.  
RITCHIE'S  
SUPERB COLLECTION OF PEAS,  
6 pints best varieties, 3s. 6d.  
SUPERB COLLECTION OF BEANS,  
6 pints best varieties, 2s. 6d.  
SUPERB COLLECTION OF  
VEGETABLE SEEDS,  
without Peas or Beans,  
3s. 6d., 5s., 7s. 6d. & 10s.  
All specially selected  
for small gardens.  
Carriage  
Paid.

NOTE.—All our Seeds are thoroughly tested at our Nurseries, Bangor, before sending out. Telephone 44.

# PLANTING SEASON

## EXTENDS TO APRIL.

---

30 Gold Medals, 22 Silver Cups for Fruit and Flowers.

---

**The Largest Stock and Best Variety of every Class of  
FRUIT TREES**

CAN BE SEEN AT

# GEORGE BUNYARD & Co., Limited.

---

The 800 kinds comprise the best developed stock in Europe, and total nearly a Million in every form for the Orchard or Garden.

APPLES.	FIGS.	NECTARINES.
APRICOTS.	FILBERTS.	NUTS.
BARBERRIES.	GREENGAGES.	ORANGES and LEMONS.
BLACKBERRIES.	GOOSEBERRIES.	PEACHES.
BULLACES.	GRAPE VINES	PEARS.
CHECKERS.	(Hardy).	PLUMS.
CHERRIES.	GRAPE VINES	QUINCES.
CHESTNUTS.	(For Vineries).	SIBERIAN CRABS.
CRABS (Apples).	LOGANBERRIES.	STRAWBERRIES.
COB NUTS.	MEDLARS.	VINES.
CURRANTS	MIRABELLES.	WALNUTS.
DAMSONS.	MULBERRIES.	

For full particulars see ILLUSTRATED FRUIT CATALOGUE, 6d. post free, with prices.  
Gratis to Purchasers and Gardeners.

---

# GEORGE BUNYARD & Co., Limited,

## Royal Nurseries, Maidstone, Kent.

ESTABLISHED 1796.

SEND DIRECT: NO AGENTS OR BRANCHES.

IRON FENCING . . . FOR . . .  
 ORNAMENTAL  
 HURDLES GARDEN  
 ESPALIERS AND  
 FRUIT WALL WIRING  
 TRAINERS PLEASURE  
 BORDER RAILS GROUNDS  
 PERCOLAS

ESTIMATES FREE.

**KENNAN & SONS, Ltd.,**

Fishamble  
 St., DUBLIN.

**ROWAN'S**

**EARLY POTATOES** for Sprouting or  
 Boxing.

PURITAN, SHARPE'S EXPRESS, MAY QUEEN,  
 2/- 2/- 2/- per stone.

PEAS—First Sowing—Bountiful, 1/6 Ameer; 1/6  
 per qt.

BEANS—Kidney—Osborne's forcing, 2/- per qt.  
 „ Broad—LONG POD EARLY 8d. per qt.

CARROT (For Frames)—French Horn, 6d. per oz.

CUCUMBER—Telegraph—1/- per pkt.

ONION—AILSA CRAIG—Best for Early Sowing in  
 boxes, 6d. per pkt.

RADISH—Crimson Giant Forcing—per oz. 6d.

SPINACH—New Giant thick-leaved—pint 1/-, oz. 3d.

TOMATO—Selected—LISTER'S PROLIFIC, 6d. & 1/-  
 pkt.

SWEET PEAS—LATEST NOVELTIES

**Catalogue of Seeds for 1908 post  
 free on application.**

TELEPHONE 672.

**M. ROWAN & Co.,**  
 Seed, Bulb, Plant Merchants,  
 51 & 52 CAPEL ST.,

**DUBLIN.**

## LEADING LINES.

IF YOU WANT THE BEST

### SWEET PEAS,

PURCHASE THE COLLECTIONS OFFERED BY

**S. McGREDY & SON.**

#### Novelty Collection No. 1.

Saint George  
 White Spencer  
 Primrose Spencer

Horace Wright  
 Lord Nelson  
 Mrs. W. King

Post free, 3s.

#### Novelty Collection No. 2.

Enchantress  
 George Herbert  
 Mrs. Collier

Nora Unwin  
 Phenomenal  
 Queen Alexandra

Post free, 2s.

No. 1 and No. 2 NOVELTY COLLECTIONS  
 complete, 4s. 6d.

### SWEET PEAS

(As classified by National Sweet Pea Society).

THE 26 VARIETIES, OFFERED IN ONE  
 COLLECTION, complete, 7s. 6d.

## SEED POTATOES.

FOR SPROUTING.

FOR PERFECT SEED, PURE STOCKS, and  
 RELIABLE VARIETIES, WE HAVE A UNIQUE  
 RECORD.

Duke of York, ...	2s. od. stone
Duke of Albany ...	1s. 6d. „
Myatt's Ashleaf ...	1s. 6d. „
Puritan ...	2s. od. „
Sir John Llewelyn ...	1s. 6d. „
Webber's E. White ...	1s. 6d. „
British Queen, No. 2 ...	2s. 6d. „
British Queen (Original Stock) ...	1s. od. „

Special prices per cwt.

*The above are the best varieties for Boxing, and orders  
 are despatched promptly.*

A CHANGE OF SEED IS THE BEST ANTIDOTE TO THE DISEASE.

NEW SEED LIST for 1908, a Reliable Guide,  
 containing only the best varieties, most suitable for  
 Irish cultivation, post free.

**SAMUEL McGREDY & SON,**  
 PORTADOWN.

# ECKFORD'S GIANT SWEET PEAS

**Genuine only Direct from Wem.**

**E**VERY gardener, amateur or professional, knows that we are the world's greatest growers of choice Sweet Peas. No other grower and retailer has specialised as we have done with this popular flower. We have devoted many years to their cultivation, and have produced a greater variety of new and beautiful self colours than any other firm. The enormous business we now do has been created by the public recognition of our efforts on behalf of Sweet Pea culture.

**EVERY YEAR WE GROW OVER 40 ACRES FOR SEED**, producing the best seed grown—seed that will give you brighter colour, larger flowers, and longer stems than any other seed offered for sale.

**Remember, Eckford's seeds are only genuine when PURCHASED FROM WEM.  
WE DO NOT SUPPLY THE TRADE.**

## LIST OF SPECIAL 1908 NOVELTIES.

**MIMA JOHNSON**, a charming bright rose carmine, 25 seeds, **1s.**

**H. J. R. DIGGES**, a bright claret shaded maroon, 20 seeds, **1s.**

**JAMES GRIEVE**, giant primrose or sulphur self, 15 seeds, **1s.**

**PURPLE KING**, giant purple, shaded indigo, 20 seeds, **1s.**

**MAY PERRETT**, new delicate shade of ivory tinged buff, 15 seeds, **1s.**

**PRINCESS VICTORIA**, giant waved pink, 10 seeds, **1s.**

**THE MARQUIS**, giant waved rosy heliotrope, 12 seeds, **1s.**

**WHITE WAVED**, a pure white wavy giant, 20 seeds, **1s.**

**WAVED PRIMROSE**, a giant waved primrose, 20 seeds, **1s.**

**PRINCE OLAF**, a giant white ground striped, clear blue, 20 seeds, **1s.**

**HANNAH DALE**, a fine giant, rich maroon, 20 seeds, **1s.**

**N.B.**—All the above are strong growers, and will need a foot between each plant.

**SPECIAL NOVELTY OFFER.**—One packet of each of the above Grand Novelty,  
**9s. 6d.**, post free. Half packet of each, **5s.**, post free for cash with order.

## 1908 SPECIAL OFFER OF GIANT SWEET PEAS.

One packet of each of the above grand novelties and twenty-four other charming and up-to-date varieties, thirty-five in all, for **14s.**, post free for cash. If this Collection is more than sufficient for your requirements I shall have much pleasure in dividing it. The thirty-five varieties, half quantities of seed, **7s. 6d.**; or

One packet of each of the above grand novelties and twelve other charming and up-to-date varieties, twenty-three in all, for **11s. 6d.**, post free for cash. If this collection is more than sufficient for your requirements I shall have much pleasure in dividing it. The twenty-three varieties, half quantities of seed, **6s.**, post free for cash.

The above is a most unique offer and quite the best of the season.

A booklet giving full particulars of the culture of Sweet Peas given with every order.

**FREE.**

Send a post card for coloured, illustrated, and full descriptive Catalogue.

It is sent post free. **WRITE TO-DAY.**

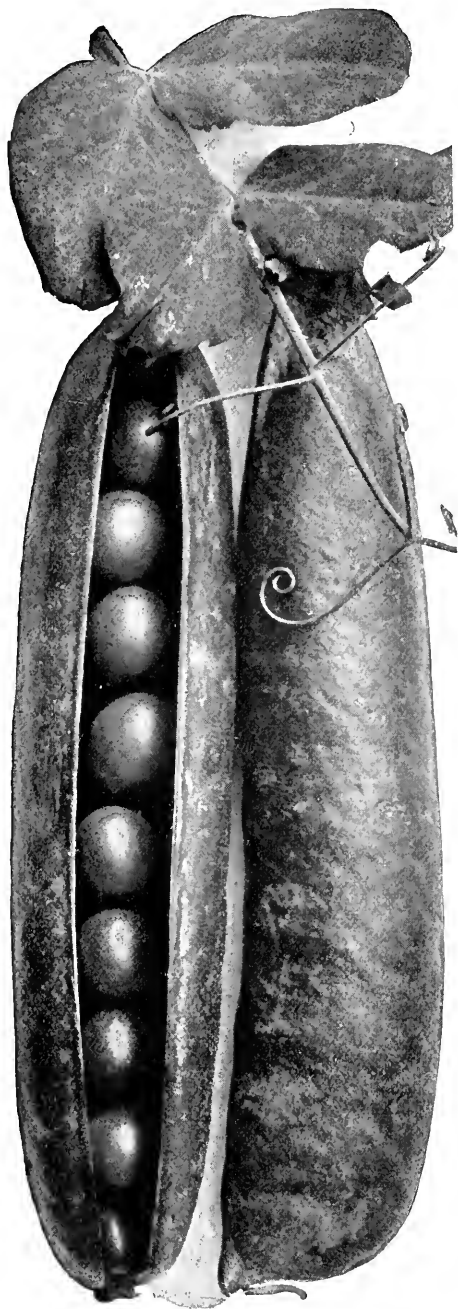
**ECKFORD'S CULINARY PEAS also lead.** They are unequalled for flavour and heavy cropping qualities.

A trial **4 pints**, in sealed packets, for complete succession, **3s. 6d.**

**HENRY ECKFORD, F.R.H.S.** The Sweet Pea  
Specialist,  
**WEM, SHROPSHIRE.**

# THE VEGETABLE GARDEN

may be made to produce a continuous supply of Vegetables throughout the year if proper treatment is given to the soil and suitable varieties of Vegetables are grown.



**M**ESSRS. SUTTON specially prepare Collections containing varieties selected for the purpose. One of the following Collections will certainly suit your garden, whatever the size may be.

<b>A Complete Collection</b> for a large Garden ...	<b>63/-</b>
<b>A Complete Collection</b> for a medium-sized Garden ... ..	<b>42/-</b>
<b>A Complete Collection</b> for a medium-sized Garden ... ..	<b>31/6</b>
<b>A Complete Collection</b> for a Villa Garden ...	<b>21/-</b>
<b>Collection of 44 Varieties</b> ... ..	<b>12/6</b>
<b>Collection of 39 Varieties</b> ... ..	<b>10/6</b>
<b>Collection of 32 Varieties</b> ... ..	<b>7/6</b>
<b>Collection of 23 Varieties</b> ... ..	<b>5/-</b>

*Particulars of Contents will be sent post free on application.*

"I cannot speak too highly of the uniform quality of your seeds, and would say to others 'when in doubt go to Sutton's.' All the year round we have vegetables, and I always regard my purchase of your Guinea Collection of Vegetable Seeds as the most profitable investment I make each year."—The Rev. H. M. HARKE, Tongham Vicarage.

**SUTTON & SONS,**  
The King's Seedsmen,  
**READING.**



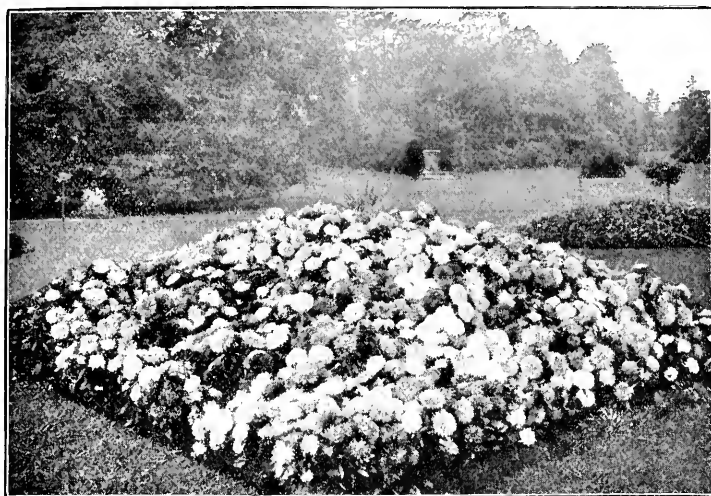


BY APPOINTMENT.

# WEBBS' SEEDS



BY APPOINTMENT.



Webbs' Bedding Aster. From a Photograph.



Webbs' Bedding Stock. From a Photograph.

## Webbs' Superb Asters.

**Webbs' Bedding.**—A splendid dwarf selection for producing masses of colour in beds (see illustration annexed)—Rose, Crimson, White, Pink, Purple, Light Blue, and Mixed Colours, each **1s.** per packet; 6 Distinct Colours, separate, **3s.**

**Webbs' New Ostrich Plume.**—White, Rose, Crimson, Blue, and Mixed Colours, each **1s. 6d.** per packet.

**Webbs' Victoria.**—White, Crimson, Purple, Light Blue, Rose, and Mixed Colours, **1s.** per packet; 6 Distinct Colours, separate, **2s.**; 12 Distinct Colours, separate, **3s. 6d.**

## Webbs' Superb Stocks.

**Webbs' Bedding.**—Specially adapted for creating effect when planted in beds and masses (see illustration annexed)—Scarlet, Canary Yellow, Purple, White, Light Blue, Rose, and Mixed Colours, **1s.** per packet; 6 Distinct Colours, separate, **3s.**

**Webbs' New Admiration.**—White, Rosy Lilac, Flesh Colour, Brilliant Crimson, each **1s.** per packet.

**Webbs' Large Flowering Ten-Week.**—Yellow, Rose, Crimson, Purple, White and Mixed Colours, each **1s.** per packet; 8 Distinct Colours, separate, **2s.**

## Webbs' Large-Flowering Sweet Peas,

Crimson, White, Rose, Yellow, Mauve, Pink, Purple, Blue and White, Purple-striped, Scarlet and White, and Mixed Colours. Each **6d.** per packet. Collection of **10** varieties, separate, **3s. 6d.**

*Illustrated Catalogue (160 pages) gratis to Customers.*

# WEBB & SONS, WORDSLEY, STOURBRIDGE.

## Answers—continued.

**SPRAYING ("Amateur").**—The two sprays are entirely different—the winter spray, because of its caustic or "burning" character, kills all active vegetation, eggs of insects, &c., that it touches, while the summer spray fluid, while poisonous to insects and fungi, does no harm to the foliage. We understand, on the authority of the United Alkali Company, that the spray-fluid "Salva Fruta" is compounded on the lines of Mr. Doolan's recipe as given in last month's issue under the "Month's Work." In it the two ingredients are mixed together, and ready for use.

*N. B. — Other correspondents answered by post.*

## Correspondence.

### LOCAL SHOWS.

**SIR,**—I desire to express my humble opinion in your valuable paper on the good of local shows, and to say why people like to exhibit. Well, to begin with, it gives one an interest in growing things properly, as to show properly one must grow properly, while, furthermore, it gives you an interest all along the line, watching the plants so as to have them in a fit state against the

## The PARAGON PEA TRAINER (PATENT).

SUITS any length of row. Easily put up or taken down. An ornament in the garden, keeping the growing Peas in neat straight lines. No trouble, always ready and will last for years with only a few pence outlay for any necessary renewal of training wire.

Excellent for Sweet Peas.

What users say in 1907:—

"I am delighted with my Pea Trainers, they are just splendid."—**BAYF.**

"The Trainer worked very well with me and kept the Peas neat and tidy."—**DUBLIN.**

"Send me another Pea Trainer same as I had last year."—**RECCARTON.**

Prices in sets complete:—

12 ft. row 4 ft. high 7/6, 5 ft. high 9/6 12 ft. row

18 " 4 " 9/6, 5 " 12/6 18 "

24 " 4 " 11/6, 5 " 14/6 24 "

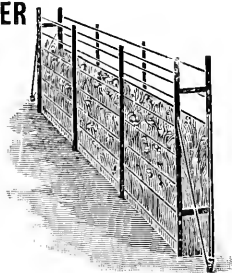
30 " 4 " 13/6, 5 " 17/6 30 "

Carriage paid to nearest station.

Write for fuller particulars.

**PARAGON PEA  
TRAINER CO.,**

Bridge St., Banbridge  
Co. Down.



## The Planting Time

### A Visit to

## Messrs. Watson & Sons' Nurseries, Clontarf,

**W**ILL convince intending planters that there is no need to cross the Channel for roses, fruit trees, or indeed most nursery stock, which formerly was not to be obtained satisfactorily in Ireland. Messrs. Watson have been steadily increasing their premises, and now, with their large nurseries, are in a better position year by year to supply all wants in home-grown stuff, at prices and of quality which will compare favourably with any reliable grower. Long-distance carriage is saved to their patrons, and, what is perhaps more important with goods of a perishable nature, owing to their nurseries being situated in the metropolis the most direct routes are available to the provinces, with the result that the trees arrive in perfect condition, and are replanted before they have time to suffer. Messrs. Watson will attend to postal or telephone inquiries from those too distant or unable to spare time to visit the nurseries and see for themselves. The entrance to the nurseries is only fifteen minutes tram drive from Nelson's Pillar.—*Daily Express.*

*New 40-page Catalogue free on request.*

**WEEDS DESTROYED GRASS INVIGORATED**

LAWNS, ON GOLF, TENNIS COURTS, BY BOWLING GREENS &c

**"CLIMAX" LAWN SAND**

THE BEST DRESSING FOR WEEDY OR IMPOVERISHED LAWNS.

TRY IT NOW.

Sample tins, 1s., 2s., and 3s. 6d.; or 28 lb., to dress 100 square yards, 6s., carriage paid.

Write for our Catalogue of Garden Helps.

**BOUNDARY CHEMICAL CO. LTD. CRANMER ST. LIVERPOOL**

Entirely  
Chemical.

# CANARY GUANO

Always  
Uniform.

**THE BEST FERTILIZER IN THE WORLD.**

**USED IN EVERY CONTINENT.**

*From Mr. G. Wythes, Head Gardener to the Duke of Northumberland, Syon Gardens, Brentford.*

I am much pleased with Canary Guano. I have found our lawns dressed with it have greatly benefited. It is most valuable for pot plants under glass. It is soon taken hold of by the roots and is a safe plant food.

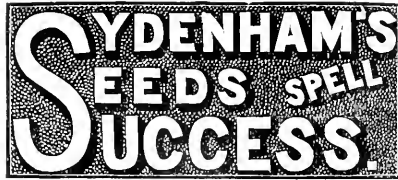
**Guaranteed  
Analysis  
with every  
Tin and Bag.**

Sold by Seedsmen, &c., in 6d., 1/-, and 2/6 Tins. Bags, 14-lbs, 4/6; 28-lbs, 7/6; 56-lbs, 12/6; 1-cwt. 20/- each, or sent direct from Ipswich, carriage paid in United Kingdom, for cash with order. (6d. Tins 10d., 1/- Tins 1/3.)

**Canary Guano is essential to secure perfection in Flower, Fruit and Foliage.**

*Write for pamphlet with particulars of 37 different Fertilizers, sent free and post paid, to the Sole Manufacturers.*

**THE CHEMICAL UNION, LIMITED, IPSWICH.**

SPECIAL  
NOTICEFOR  
1908.

IF YOU WANT

# REALLY GOOD SWEET PEAS

AT MODERATE PRICES, send to

**MR. ROBERT SYDENHAM, TENBY STREET, BIRMINGHAM.**

No Flowers give so much cut bloom at so little cost and trouble as Sweet Peas.

## SPECIAL COLLECTIONS FOR 1908.

The seeds in these Collections are all carefully hand picked; only plump round seeds sent; all small, poor, or doubtful ones are taken out, which I do not think is done by anyone else in the trade; eighty to ninety per cent. guaranteed to germinate if treated as instructions sent with each collection.

Each Packet in Collections 1, 2 and 3 contains 50 plump round selected seeds.

For fuller descriptions of the varieties mentioned in this list and all other known varieties, I refer my friends to my little booklet

"ALL ABOUT SWEET PEAS," revised and corrected to end of 1907. Price 6d.

ALL INTERESTED IN SWEET PEAS SHOULD BUY THIS LITTLE BOOK BEFORE PURCHASING THEIR SUPPLY FOR THE SEASON; AND MAY DEDUCT THE 6d. PAID FOR IT FROM THE FIRST 5s. SENT FOR SEEDS.

**COLLECTION No. 1—TWELVE USEFUL VARIETIES, 1/6.**—Bolton's Pink, large salmon pink; David R. Williamson, rich medium blue; Gladys Unwin, pale pink, slightly darker edge; Lovely, pale pink; Mrs. G. Higginson, pale French grey; Navy Blue, deep violet blue; Prince Edward of York, rich salmon standard, lighter wings; Prince of Wales, rich rosy crimson; Sadie Burpee, white; Salopian, deep mulberry red; Scarlet Gem, pale scarlet; Triumph, rosy salmon and bluish.

**COLLECTION No. 2—TWELVE BETTER VARIETIES, 1/9.**—Agnes Johnston, salmon pink and buff; Black Knight, bronzy chocolate; Blanche Burpee, white; Countess Spencer, large pale pink wavy standard; Dainty, white, with slight pink edge; Duke of Westminster, rosy violet; Evelyn Byatt, orange and crimson bicolor; Flora Norton, rich sky blue; Janet Scott, pale pink, flushed buff; King Edward VII., rich crimson; Miss Willmott, salmon red; Romolo Piazani, rich blue.

SINGLE PACKETS OF ANY VARIETY IN COLLECTIONS Nos. 1 and 2, 2d. each; COLLECTIONS Nos. 1 and 2, when bought together, will be 2 6, and a packet of "Coccinea" and "Horace Wright" will be added free of charge.

**COLLECTION No. 3—THE BEST TWELVE VARIETIES, 2/-.**—Dorothy Eckford, white; George Herbert, pale carmine standard, lighter wings; Helen Lewis, syn. ORANGE COUNTESS, rich wavy orange standard, rosy wings; Helen Pierce, marbled or grained blue; Henry Eckford, orange scarlet; Hon. Mrs. Kenyon, pale primrose; Jeannie Gordon, carmine and buff; Lady Crisel Hamilton, pale lavender; Mrs. Walter Wright, rich lavender blue; Paradise, rich pink, the best of the COUNTESS SPENCER type; Queen Alexandra, the best crimson scarlet; Sybil Eckford, creamy buff, dusched pale pink.

SINGLE PACKETS OF ANY VARIETY IN COLLECTION No. 3, 3d. each, OR ANY SIX FOR 1/3. COLLECTIONS Nos. 2 and 3 may be had together for 3/-, and a Packet of "Phenomenal" and "Earliest of All White" will be added free of charge.

## SPECIAL PRICE FOR THE THREE COLLECTIONS, 4/-

and when bought together, the four added packets and a packet each of the four best striped varieties, viz.:

Jessie Cuthbertson, Mrs. J. Chamberlain, Marbled Blue and Unique,

will be added free of charge, making 14 of the very best varieties in cultivation, at an average cost of about one penny a packet.

PRICE OF EITHER OF THE EIGHT ADDED VARIETIES, IF WANTED ALONE, 2d. EACH.

**COLLECTION No. 4 THE TWELVE NEWEST VARIETIES, 4s., or what I consider the Best of the Newest.** The number of seeds in these packets varies, the quantities are stated in black figures after each name. Agnes Eckford (15), soft bluish pink, 3d.; Earl Cromer (20), mulberry, 4d.; Frank Dolby (20), lavender, 4d.; Herbert Smith (25), orange bicolor, 6d.; Lord Nelson (20), syn. BRILLIANT BLUE, dark blue, 4d.; Miss Millie Maslin (25), rich crimson, 4d.; Mrs. Hardcastle Sykes (20), bluish pink, 6d.; Mrs. Collier (20), new primrose, 4d.; Nora Unwin (20), white, 4d.; Primrose Spencer (10), syn. or improved CLARA CURTIS, grand new wavy primrose, 6d.; Queen of Spain (20), salmon pink, 4d.; White Spencer (10), syn. or improved ETTA DYKE, the newest, best, and largest wavy white yet raised, 6d.

COLLECTIONS Nos. 3 and 4 may be had together for 5/- and a packet of the newest and best Everlasting Pea, WHITE PEARL, free of charge.

Any variety in Collection No. 4 may be had at the prices mentioned after each name, or six packets at the price of five, or buyers may select their own varieties from either Collection at prices mentioned, and have 3s. worth for each 2s. 6d., or six packets of any variety at price of five.

PRIMROSE SPENCER and WHITE SPENCER may be had in Packets of 25 seeds, 1s. each, or six packets for 5s.

## SPECIAL PRICE FOR THE FOUR COLLECTIONS, 7/-

And in addition, a packet of MRS. CHARLES FOSTER and JOHN INGMAN seedlings will be added, and a PRIZE OF £5 given to the first who can and will send me a thousand seeds of either that are true and guaranteed to come true the following year.

CHOICE MIXED SEEDS of most of the above, and other varieties, 2d. per packet of about 100 seeds; 6d. per ounce of about 350 to 400 seeds; 1s. 6d. per ½ lb., or 5s. per lb. of about 5,000 to 5,500 seeds.

All other seeds equally cheap and good.

Full List post free on application.

PLEASE MENTION THIS PAPER.

## Correspondence—continued.

show day. It is presumably the most deserving exhibit that gets the prize, and I know what it means to me to be able to carry away a prize, not for the sake of the prize alone, but because it confirms me in my own good opinion of my method of culture. When you see a man taking the trouble to exhibit you may be sure he is not a lazy man as regards his garden or farm. Of course I mean honest competitors. Unfortunately I know as a fact that every man who shows is not acting square according to the rules of the schedule, yet I fail to see what honour or satisfaction it can be to such an exhibitor. I myself have exhibited in a small way, and not without some little success, and it has given me great pleasure and encouragement. Again, exhibiting or even visiting a good show tends to take the conceit out of a too self-opinionated man, as he is most likely to see much better grown stuff than the specimens he thought so much of in his own garden. Again, I find the quiet, unassuming man often coming out best at those shows. The men that say shows are no use generally boast a lot about their wonderful productions at home, and are yet afraid to compete with their neighbours. "A thing of beauty is a joy for ever." And there is no way you can have that thing of beauty like paying proper attention and care to it. And it is by attending shows and competing that you will take that interest in things that will help to make them a success in every way. Just a word or two more in conclusion as regards amateur prizes. For my part I think competition for these ought to be strictly confined to the people who actually do their own work, and so encourage individual knowledge, skill, and industry.

H. V. W.

**"NICOTICIDE" Fumigant.**

Half-gallon Tin, containing sufficient for 160,000 cubic feet	..	60/-	} Cart. paid.
No. 1 size Tin—1 pint	..	15/-	
No. 2 size Tin— $\frac{1}{2}$ pint	..	7 6	
No. 3 size Bottle—5 oz.	..	4 6	
No. 4 size Bottle—4 oz.	..	3/-	
No. 5 size Bottle—1 oz. (sample)	..	2,000	10d.

**FUMIGATORS,**  
1/- each, for 5,000 cubic feet.

Cart. paid.

**NICOTICIDE  
PLANT WASH  
For Outdoors.**

$\frac{1}{2}$  Pint, 1/2; Pint, 2/-;  
Quart, 3 6;  $\frac{1}{2}$  Gallon, 5/-;  
Gallon, 10/-



Gow's Slug and Wire-  
worm Destroyer,  
Lawn Sand, Daisy  
Eradicator,  
Tobacco Powder and  
Quassia Extract.

Sold in 6d., 1/-, also 2 6  
Tins and larger sizes.

INSIST ON YOUR SEEDSMAN  
SUPPLYING THEM.

**GOW'S WINTER ALKALI TREE WASH** for destroying Woolly  
Aphids, Scales, Lichen Moss and Apple Suckers, &c. Half-gallon, 2 6; Gallon, 5/-  
carriage paid. One gallon will make 20 gallons solution.

**HUNTER & COW, 46 Thomas Street, LIVERPOOL.**

WHEN IN BELFAST, LUNCH OR DINE AT

YE OLDE CASTLE,

CASTLE PLACE.

—The Finest Restaurant in Ireland.—

Telephone 1250.

Wires: "Diet, Belfast."

# NEW GIANT-FLOWERED SWEET PEAS.

## Edmondson's Eblana Collections

of the 25 Best New Giant-Flowered Sweet Peas.

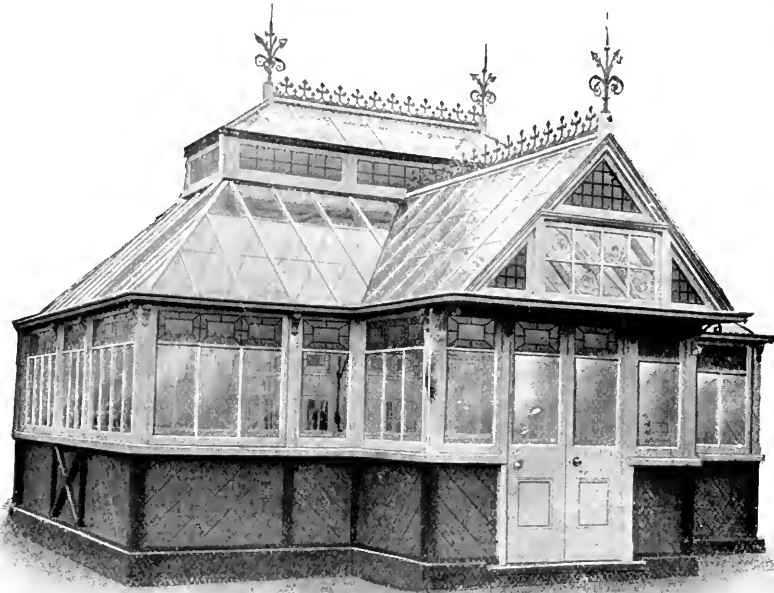
25 Varieties, 40 Seeds each	...	...	1,000 Seeds for	1/6
25 do. 80 do.	...	...	2,000 do.	2/6
25 do. 175 do.	...	...	4,375 do.	5/-

The "Minor Eblana" Collection ... 12 Choice Sorts, 1/-

Eblana Mixture—1 quart, 5/-; 1 pint, 2/6; half-pint, 1/6; per oz., 3d.

Giant-Flowered Mixture per lb., 5/-; half-lb., 2/6; per oz., 6d.

**EDMONDSON BROTHERS,**  
Seedsman, 10 Dame Street, DUBLIN.



# JAMES CRISPIN

& SONS, F.R.H.S.

SUPPLY

ALL CLASSES OF  
Horticultural . . .  
. . . Buildings .  
Heating, Ventilating,  
AND  
Domestic Supply  
APPARATUS.

HEAD OFFICE—

**NELSON ST.,**  
**BRISTOL.**

Awarded Prize Medal, Royal Botanic Society.

## WALSH'S GIANT FLOWERING SWEET PEAS

"THE BEST THAT GROW."

EXHIBITION COLLECTION,

containing 21 Best Varieties, recommended by N. S. P. S.

46 POST FREE.

POPULAR COLLECTIONS.

No. 1 containing 25 selected varieties, about 1250 Seeds,	- 1 -
No. 2       "      25       "      "      "      2000       "	1/6
No. 3       "      25       "      "      4000       "	2/6

POST FREE.

Illustrated Seed Catalogue and Guide free on application.

## WALSH'S ROSES AND FRUIT TREES.

EXTRA STRONG, HARDY, WELL-ROOTED,  
TRUE TO NAME.

Hundreds of Thousands to select from.

*Descriptive List Free.*

**JAMES WALSH,** Seedsman &  
Nurseryman,  
**PORTADOWN.**

## Vegetable Seeds.

Thomas McKenzie & Sons, Ltd.

## Flower Seeds.

Thomas McKenzie & Sons, Ltd.

## Agricultural Seeds.

Thomas McKenzie & Sons, Ltd.

## Garden Tools, Lawn Mowers.

Thomas McKenzie & Sons, Ltd.,

212 Gt. Brunswick Street,

Dublin.

# IRISH QUEEN GUARANTEED.

I hold the **LARGEST STOCK IN THE WORLD**, and believe this is the **BEST MAINCROP POTATO IN THE WORLD** for Ireland.

IRISH QUEEN is of Champion type, and in many points it is superior to Champion in its early days.

After growing it in 1906, and thus learning its merits, I purchased all the available stock from the (actual) raiser. It is second to none, and I **GUARANTEE** it true to name.

**CATALOGUES FREE.**

**ISAAC BELL, PARKMOUNT, BANBRIDGE.**

Have you a Garden?

**Sow DRUMMOND'S**

**Celebrated SEEDS.**



PRICED CATALOGUES FREE.

**W. DRUMMOND & SONS, Ltd.**

Nurserymen and Seedsmen,

**57 & 58 DAWSON STREET,  
DUBLIN.**

## WOOD TRELLIS ROSE PILLARS.

Unequalled in all respects for the cultivation of climbing roses.

### No. 2.

Height of ribs 8 ft.

„ over all 10 ft. 8 in.

Made with eight vertical wood ribs.

### PRICES—

Each ... **5/3**

Three or more **4/9**

Six or more **4/6**

### No. 3.

Height of ribs 8 ft.

„ over all 10 ft. 8 in.

Made with four vertical wood ribs.

### PRICES—

Each ... **4/9**

Three or more **4/3**

Six or more **4/-**

Taller Pillars, 6d. per foot extra.

Painted two coats Carbolineum.

**Carriage paid to Ireland.**

Heavier Pillars in other designs, up to **26/-**

Send for our list of special Rose Trellises, Arches, Pergolas, Arbours, all made in wood, post free.

**WALTERS & CO.**

(DEPT. A.),

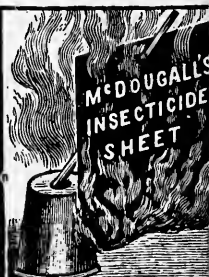
**16 Water Lane, Great Tower Street,  
LONDON, E.C.**



**FUMIGATE WITH  
McDOUGALL'S  
"FUMERS" or "SHEETS"**

**SAFE—HANDY—EFFECTUAL—ECONOMICAL.**

**STOCKED BY ALL SEEDSMEN.**



200 Highest Awards, Gold Medals from  
all the Principal Exhibitions.

## PURE ICHTHEMIC GUANO.

The Most Reliable, The Richest Food,  
and the Most Natural Fertiliser

Supplied in Tins and Bags, 6d. to 20/. Carriage paid  
on quantities of 28-lbs. and upwards.

### FAME'S FERTILISER.

Swift, Safe, and Sure.

Supplied in Tins and Bags, 6d. to 20/. Carriage paid  
on quantities of 28-lbs. and upwards.

May be obtained from the principal Nurserymen, Seedsmen,  
Florists and Chemists, or DIRECT OF—

The Sole Proprietors and Manufacturers,

**WM. COLCHESTER & CO.,**

IPSWICH, England.



## Cross's Vaporiser

(Nicotine Fumigating Compound).

Equal to any preparation  
in the market, and will be  
found absolutely satisfactory  
in its results.

**16/- per pint**

(To Fumigate 40,000 Cubic Feet).

A Reduction of 20% on the Current  
Price. **WHY PAY MORE?**

To be had through your Seedsman.

**Alex. Cross & Sons, Ltd.**

Horticultural Specialists,

**GLASGOW.**



## Salva-Fruta.

FOR SPRAYING FRUIT TREES IN WINTER.

All Fruit Trees should be treated  
with this preparation ; it effectively

destroys every vestige of  
MOSS, LICHEN, AND GREEN SLIME,  
as well as the eggs of  
MOTHS, APHIDES, RED SPIDER, &c.

Salva-Fruta is a Powder, and  
is easily dissolved in cold water.

It is put up in canisters of  
1lb., 2lb., 4lb., and 10lb. each.

Full Directions and Prices can be  
obtained from the Manufacturers,

**The United Alkali Co., Ltd.,**

**GREENBANK WORKS,**

**ST. HELENS, LANCASHIRE.**

Or from all the principal Seedsmen in the United Kingdom.

**IMPORTANT TO  
GARDENERS  
and Fruit Growers.**



# "Niquas"

(Registered).

The most successful Non-poisonous Insecticide  
of the day.

ITS ADVANTAGES ARE—

Certain death to all Insect Pests.

No possible injury to the most delicate Plant, Flower or Foliage.

It is by far the cheapest Insecticide known. One pint makes ten  
to twelve gallons for Thrip, Black and Green Fly, etc., whilst RED  
SPIDER, Mealy Bug, and Scale can be thoroughly eradicated by  
using "NIQUAS," double or three times the strength required  
for Fly.

**PRICES**—Pint, 1/-; Quart, 1/9; Half-Gallon, 3/-; Gallon, 5/-;  
Kegs, each Five Gallons, 22/6; Ten Gallons, 42/6.

Ask for Testimonials, of which some hundreds have been  
received.

### SPECIMEN TESTIMONIAL.

From Mr. E. HUBBARD, Gardener to G. Hanbury, Esq.,  
Blythwood, Burnham, Bucks, May 15th, 1906.

"I have been using your "NIQUAS" Insecticide for some  
years, and can with all confidence say it is the best I have ever  
used for Bug, Thrip, Red Spider, American Blight, and for all  
Insect Pests it has no equal. Also for the destruction of Maggots  
in Marguerites by dipping.

"I have recommended it to my friends generally."

## LETHORION

IMPROVED METAL

## VAPOUR CONE

FOR FUMIGATING.

At Greatly Reduced Prices.

INTRODUCED 1885.



Registered Trade Mark.)

This well-known invention for the entire eradication of all pests  
infesting vegetation under glass is now manufactured in a more  
simple and reliable form. The small candle, which will be found  
packed with each cone, has only to be lighted, and placed on the  
ground in the centre of the Cone Frame, to produce immediate  
results. Nothing on the market can equal it for efficacy and  
cheapness.

Cone No. 3, for a well-secured house of cubic 2,000 to 2,500  
feet, 1/- each. Cone No. 2, for a well-secured house of cubic  
1,000 to 1,200 feet, 8d. each. Cone No. 1, Carbon, for frames of  
cubic 100 feet, 6d. each. Full directions accompany each Cone.

Ask for a List of Testimonials, of which some hundreds have been  
received from the leading gardeners in the Kingdom.

**To be had from all Seedsman  
and Florists.**

MANUFACTURED BY

**CORRY & CO., LTD.,**

At their Bonded Chemical Works,

**SHAD THAMES, S.E.**

Office & Show Rooms:—13 & 15 Finsbury St., London, E.C.



## Miscellaneous Section.

**"XL ALL"** Vaporising Compounds and Insecticides (non-poisonous and poisonous). **"XL ALL"** Weed Killer and Fertilizer, New Green Sunshade, &c. **"XL ALL"** Specialities are used and sold by Nurserymen, Seedsmen and Florists all over the United Kingdom. Manufacturer will send Price List by return, and give address of nearest Agent. Poisonous preparations only sent direct when Agent cannot supply. Be sure you get the original inventions—**"XL ALL."**

G. H. RICHARDS,  
234 BOROUGH, LONDON, S.E.

**To Lovers of their Gardens**

You cannot do better than consult our *Illustrated Guide for Amateur Gardeners*, 164 large 4to pages, 190 illustrations, 2 beautifully coloured plates, and many cultural hints.

In it you will find catalogued every description of Vegetable and Flower Seeds, all of the finest quality, and at moderate prices.

It deals also largely with Nursery Stock—Fruit Trees, Roses, Plants, etc.—in fact with Everything Required for the Garden.

Our reputation has been built up on the **QUALITY** of the seeds and plants we sell.

Will be sent to all intending purchasers on receipt of 3d. to cover actual cost of postage.

**Daniels Bros. Ltd.**  
BY APPOINTMENT TO H.M. THE KING  
**NORWICH.**

**J. NESS & CO.**, 12 Sandside, Scarboro', Garden and Lawn Tennis Boundary Net Makers; also Rabbit, Stag, Fishing, Cricket, and other Nets.

**FIRST-CLASS STRAWBERRY PLANTS**, 3s. 6d. and 5s. per 100.—**BURROWS**, Strabane.

**PROTECT YOUR GARDENS.**—Netting, strong, small mesh, 100 yds. by 1 yd., 4s.; by 2 yds., 8s.; by 3 yds. wide, 12s.; any width or length can be supplied; orders over 5s. carriage paid.—**H. J. GASSON**, Net Works, Rye.

**BEGONIAS** (Single).—Exhibition Strain. Finest in Cultivation. Enormous Flowers. Top-size Tubers in Separate Colours. 2s. 6d. doz. 18s. 100. **W. J. WORRELL**, Nurseryman, Leamington.

**GERANIUM PAUL CRAMPEL.**—Finest Scarlet Bedder. Immense Blooms. Strong-rooted Cuttings for Potting on. 3s. 6d. doz. 24s. 100. **W. J. WORRELL**, Nurseryman, Leamington.

**THE JOYS OF GARDENING** are realized by using **"The Ashbourne"** Garden Fertilizer. The most concentrated and Complete Manure for Horticultural purposes. One and a half times as powerful as the largely advertised Garden Fertilizers in commerce—therefore more economical. Prepared on the most up-to-date methods. Of general uniform quality, highest solubility, with constituents correctly balanced for promoting a healthy, vigorous plant growth—per stone, 2s. 6d.; per cwt., 14s. 6d. **THE ASHBOURNE COMPANY**, Nurserymen, Parliament Street, Dublin.

## ATHBOY "DAFFYDOWNDILLY."

A Flower, Vegetable, and Cottage Produce Show

WILL BE HELD IN THE  
**NATIONAL SCHOOLS, ATHBOY,**  
On Tuesday, April 21st, 1908.

Open, Amateur, and Cottager Classes. Liberal Prizes for Flowers, Vegetables, &c.; also for Butter, Eggs, and Home-made Bread. Entries close on Monday, April 6th. For Schedules and Entry Forms apply to the Hon. Sees., C. K. DOUGLAS and C. W. PARR, Parkstown, Ballivor, Co. Meath. Show opens 1.30 p.m.

Admission, 1s.; from 4.30 to 6.30, 6d.

SECOND AND CHEAPER EDITION. JUST PUBLISHED  
Fcap. 8vo, Cloth, 438 Pages, 113 Illustrations. **4s. 6d.** net.

## The Horticultural Note Book

A MANUAL OF  
**PRACTICAL RULES, DATA, AND TABLES**

For the use of Students, Gardeners, Nurserymen, and others interested in Flower, Fruit, and Vegetable Culture, or in the Laying-out and Management of Gardens.

By **J. C. NEWSHAM, F.R.H.S.,**

Headmaster and Manager of the Hampshire County Council Agricultural and Horticultural School.

London: **CROSBY LOCKWOOD & SON,**

7 Stationers' Hall Court, E.C., and 121A Victoria Street, S.W.

## WALSH'S GIANT-FLOWERING SWEET PEAS.

Cheapest offer in the Trade. All tested (unequalled). No. 1 Collection, containing 25 varieties, 1,250 Seeds, 1s., post free; No. 2 Collection, containing 25 varieties, 2,000 Seeds, 1s. 6d., post free. Catalogues free. **JAS. WALSH**, Seedsman, Portadown.

**NOTICE.**—Don't stake your Carnations till you have seen **PORTER'S IMPROVED COIL STAKE.** No tying required; Stakes last a lifetime. The greatest boon ever offered to growers. Only wants seeing. 7s. 6d. per 100; sample dozen, 1s. Carriage paid. Cash with order.—**A. PORTER**, Stone House, Maidstone.

## Vegetable, Flower, and Farm Seeds

From the Finest Stocks and Strains in Cultivation.

Catalogue Post Free.

## Browne, Thompson & Co.,

Seedsmen, CORK.

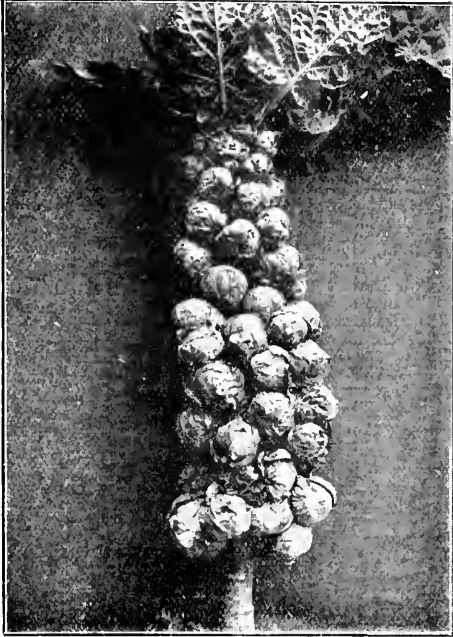
Telegrams—"THOMPSON, SEEDSMAN, CORK."

**SLUGS, WIREWORM &c.**  
**DESTROYED & PLANTS INVIGORATED**

By a Dressing of **"ALPHOL."** A valuable Manure which Destroys Insect Pests in the soil without injury to the plants. Try it now. 28 lbs. will dress 250 square yards, 7 lbs., 2/-; 14 lbs., 3/-; 56 lbs., 8/6; 1 cwt., 15/-. Every enquiry welcomed.

**BOUNDARY CHEMICAL CO. LTD. CRANMER ST. LIVERPOOL**

# MACKEY'S GENUINE SEEDS.



## THE "PARCEL POST" COLLECTION.

- 4 pints Peas for Succession.
- 1 pint Broad Beans.
- 1 pkt. Borecole, Finest Curled.
- 1 pkt. Brussels Sprouts, Giant.
- 1 pkt. Cabbage, Improved Nonpareil.
- 1 pkt. Cauliflower, Early London.
- 1 pkt. Carrot, Paragon.
- 1 pkt. Leek, Musselburgh.
- 1 pkt. Lettuce, Improved All the Year Round.
- 1 pkt. Onion, James' Keeping.
- 1 pkt. Parsley, Extra Curled.
- 1 pkt. Parsnip, Select.
- 1 pkt. Radish, French Breakfast.
- 1 pkt. Spinach, Longstanding Round.
- 1 pkt. Turnip, Selected Snowball.

5/6

POST FREE.

**SIR JAMES W. MACKEY, Limited, Seedsman, DUBLIN.**

ROYAL HORTICULTURAL SOCIETY OF IRELAND.

# Grand Spring Flower Show

**Royal University, 8th and 9th April, 1908.**

(By kind permission of the Senate.)

**DOORS OPEN EACH DAY 2 to 10 o'clock.**

Schedules of Spring and August Shows, post free on application to—

WALTER KEATING, Junr., Secretary,

5 Molesworth Street, Dublin.

FOR . . .  
**GARDEN**

AND

**PLEASURE**

**GROUND**

**IRON FENCING**

**ORNAMENTAL  
HURDLES**

**ESPALIERS**

**FRUIT WALL WIRING**

**TRAINERS**

**BORDER RAILS**

**PERGOLAS**

ESTIMATES FREE.

**KENNAN & SONS,**  
Fishamble  
St., **DUBLIN.**

**HEALTHY NURSERY STOCK**

Our Nurseries, near Dundrum, are situated  
**600 feet above sea level**

at the base of the Dublin Mountains.

Enjoying the purest air, and growing in  
ideal nursery land, our

**Plants and Trees are in  
the healthiest condition**

and thoroughly sturdy.

Horticulturists will readily recognise the utility of  
planting such stock for obtaining the best results.

*General Nursery List on application.*

**The Ashbourne Coy.,**  
Nurserymen,  
15 Parliament Street & 51 Essex Street,  
**DUBLIN.**

**TAIT'S  
GARDEN SEEDS  
ARE THE BEST.**

Carriage Paid.

Selected Vegetable Seeds.

Choicest Flower Seeds.

Imported Seed Potatoes.

Every Requisite for the Garden.

Call or write for Tait's Annual List, post free.

**W. TAIT & CO.,**  
Seed Merchants,  
119 & 120 Capel St., **DUBLIN**

**REMEMBER**

THAT

**RITCHIE'S**

GENUINE TESTED

**SEEDS**

ARE

**MAKING RAPID STRIDES.**

*ILLUSTRATED CATALOGUE FREE.*

**ARTHUR S. RITCHIE & CO.**

89 & 91 VICTORIA STREET,

Telephone 859.

**BELFAST.**

**ISLINGTON NURSERIES,**

Telephone 44.

**BANGOR, CO. DOWN.**

# FOR ALL LEAF EATING INSECTS

ON APPLE TREES, PEAR TREES, ELMS, CURRANTS, GOOSEBERRIES &c.,

SPRAY

WITH

## SWIFT'S ARSENATE OF LEAD

IT will supersede all other similar Insecticides, and is at present being used on the best Fruit Farms throughout the United States. **Experiments made in Ireland** last year with Swift's Arsenate of Lead **demonstrated its superiority** over Paris Green, London Purple, &c. See Department's Leaflet No. 85, and write for descriptive booklet with testimonials, &c.

**Suitable for all trees. It sticks on the leaves.**

**Rain will not wash it off.**

**No danger of burning or scorching the leaves.**

**Tends to produce better and larger fruit.**

**Used by many Irish fruit growers last year.**

### PRICES—

1lb. Tins	...	at 1s. per lb.	20lb. Wooden Pails	...	at 9½d. per lb.
5lb. Wooden Pails	...	10d. "	50lb. " Kegs	...	9d. "
10lb. " "	...	9½d. "	100lb. " "	...	8½d. "

**MANUFACTURED BY MERRIMAC CHEMICAL COY., BOSTON.**

Sole Irish Agent—D. M. WATSON, Chemist, 61 South Great George's Street, Dublin.

**No  
More  
Rats  
or  
Mice**

Use "Liverpool" Virus. No risk to Fowl, Dogs, or any other animals. It only affects rats and mice.

### An Irish Testimonial.

ERYBANE, CASTLEBLANAY.

DEAR SIR,—I am writing to tell you of the success of the "Liverpool" Rat and Mouse Virus. My dairy was infested with rats, and I was advised to try your product, which I did, and since then I have not seen a rat about the place. Immediately afterwards I was troubled with mice all over the house—remembering my former experience I sent to you for Mouse Virus, and I am thankful to say these have likewise disappeared.—Yours faithfully,

S. WINDRUM.

### PRICES—

Virus for Rats,	...	2/6	Per Tube.	
Large Tube, containing				
6 times amount of Virus	8/-			
Virus for Mice,	...	1/6		

The demand for "Liverpool" Mouse Virus has recently increased very much; Mice are even more susceptible than Rats to the Virus treatment.

Full Directions with each Tube.

N.B.—If Rats are numerous the large tube should be used.

Agent in Ireland for all articles on this page—  
**D. M. WATSON, HORTICULTURAL CHEMIST,**  
**61 South Great George's St., DUBLIN.**

'Phone, 1971. Write for Booklet of Testimonials, &c.

All Articles advertised on this page can be seen at Watson's Stand at Spring Flower Show (Royal Horticultural Society), or Royal Dublin Society's Spring Show, Ballsbridge.

## SMITH'S

### LIQUID.—Prices:

	s. d.		£ s. d.
1 gal	2 0	8 gals.	0 12 6
2 "	3 9	10 "	0 14 0
3 "	5 6	12 "	0 17 0
4 "	7 0	16 "	1 2 6
5 "	8 0	18 "	1 5 0
6 "	9 6	20 "	1 8 0
40 gallons,			£2 10 0.

One Gallon makes 25 Gallons for use. Packages extra, but allowed for on return.

Carriage paid on 8 Gallons.

## Weed

### POWDER.

**A Scientific Triumph!**  
Nothing like it ever seen before!  
Immediately Soluble in cold water!

All Tins Free. No Return Empties.

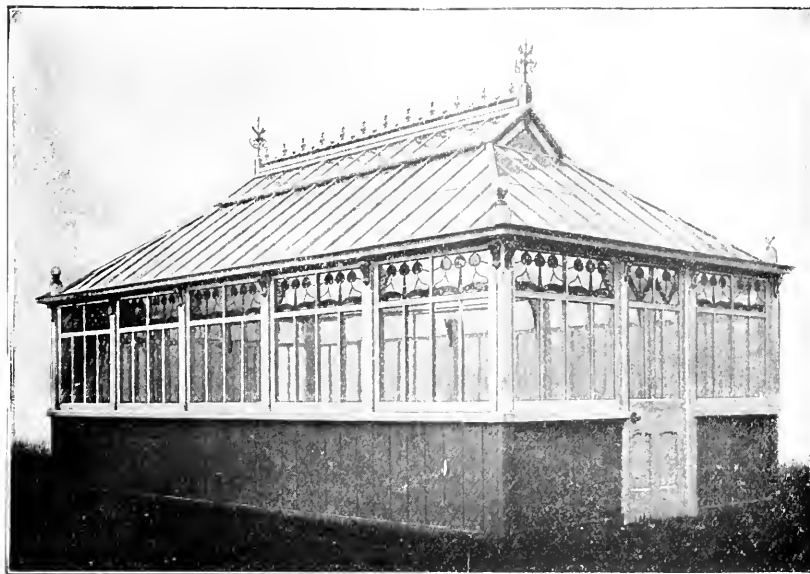
	£	s	d
1 Tin, sufficient to make 12 gals.	0	1	0
1 " " " 25 "	0	2	0
4 " " " 100 "	0	7	6
*8 " " " 200 "	0	12	0
*12 " " " 300 "	0	17	0
*20 " " " 500 "	1	8	0
†40 " " " 1,000 "	2	10	0

Carriage Paid on 8 Tins.

\* Box 6d extra. † Box 1s. extra.

(Powder & Liquid)

## Killer



SEE OUR STAND AT ROYAL . . .  
DUBLIN SOCIETY SPRING SHOW,  
WHERE SIMILAR CONSERVA- . . .  
— TORY WILL BE ERECTED.

Our Representative at Show will  
be pleased to call on any gentle-  
men contemplating erection of  
any class of Horticultural Build-  
ing or Heating Apparatus.

**JAMES  
CRISPIN  
& SONS, F.R.H.S.**  
. Supply all classes of .  
**HORTICULTURAL**  
. **BUILDINGS,** .  
**HEATING,**  
**VENTILATING,**  
. and .  
**DOMESTIC SUPPLY**  
**APPARATUS.**

HEAD OFFICE—

**NELSON ST.,  
BRISTOL.**

**YOU  
WANT TO KNOW  
where to obtain good value in  
FRUIT TREES  
AND  
ROSES?**

Then you cannot do better than write for our  
Descriptive Catalogue and Guide.

We make a speciality of these, and hold an immense  
stock, well grown and true to name.

**Landscape Gardening** undertaken in any  
part of the country, and advice on all matters connected  
with Fruit Tree or Rose planting gladly given.

Whether you are planting one or many, it is well to  
have the best, seeing that a good tree, well planted, is a  
source of pleasure and profit for a lifetime.

A large stock of Hardy Perennials, Ornamental Trees,  
and Shrubs to offer.

**CATALOGUES FREE.**

**The BARNHAM NURSERIES,  
LIMITED,  
BARNHAM, SUSSEX.**

**ROWAN'S  
ASTERS.**

**OSTRICH FEATHER**—Pure White,  
Bright Rose, Salmon Pink, Reddish Lilac,  
Light Blue, Terra Cotta, White changing to  
Rose, Malmaison Rose, 8 varieties, 1/6.

**GIANT COMET**—Pure White, Lilac  
Rose, Carmine, White turning to Azure, Rose,  
Carmine with White Centre, Lilac, Sulphur,  
8 varieties, 1/6 post free.

**See Catalogue for other sorts.**

TELEPHONE 672.

**M. ROWAN & Co.,**  
Seed, Bulb, Plant Merchants,  
51 & 52 CAPEL ST.,

**DUBLIN.**

Without doubt the most popular flowers at the present time are

## **SWEET PEAS,**

and in compiling our

# **Gem Collections of Giant-Flowered Varieties**

we believe we have succeeded in providing for our customers a selection of sorts which are unrivalled in range of colour, size of flower, and general good qualities.

The two collections, A and B, embrace the finest collection of twenty-four sorts ever offered at popular, cheap prices.

### **Gem Collection A**

comprises the following 12 sorts, viz.—

Dorothy Eckford, Countess Spencer (re-selected), John Ingman, Helen Lewis, King Edward VII., Scarlet Gem, Hon. Mrs. E. Kenyon, Black Knight, Miss H. C. Philbrick, Romola Piazzani, Agnes Johnson, Navy Blue.

**Collection 1A**—200 seeds of each of the above, 4/6

**Collection 2A**—100       "       "       "       2/9

**Collection 3A**—50       "       "       "       1/6

Collections No. 1A and No. 1B together for 7/-. Collections No. 2A and No. 2B together for 4/-. Collections No. 3A and No. 3B together for 2/6.

### **Gem Collection B**

comprises—

Dainty, Phenomenal, Mrs. Walter Wright, Bolton's Pink, Duke of Westminster, D. R. Williamson, Janet Scott, Gladys Unwin, Prince of Wales, Coccinea, Jeanie Gordon, Lady Grizel Hamilton.

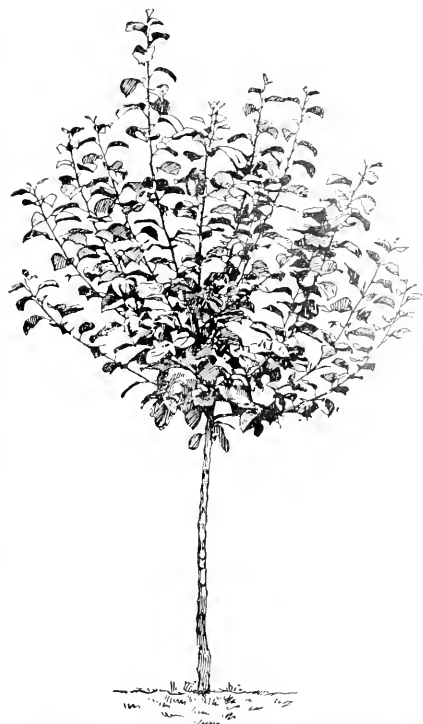
**Collection 1B**—200 seeds of each of the above, 3/=-

**Collection 2B**—100       "       "       "       1/9

**Collection 3B**—50       "       "       "       1/-

For full descriptions of these and all other vegetable and flower seeds see our new illustrated Catalogue, post free on application.

**Alex. Dickson & Sons, Ltd.,** 55 Royal Avenue, **BELFAST.**  
61 Dawson Street, **DUBLIN.**



## **MY . . . CACTUS DAHLIAS**

Which have won for me 17 Gold and Silver Medals all over Ireland, and have never been beaten at R.H.S.I. Shows, include the very finest varieties only, and are quite the best in Ireland.

Price from 3/6 Dozen upwards.

### **EARLY AND LATE FLOWERING CHRYSANTHEMUMS**

are also extra choice, and very select; I grow these by the thousand.

List Free.

**BEDDING PLANTS** in all usual varieties are done in very large quantities and splendid quality.

Lists ready in April.

All Dahlias, Mums, and Bedding Plants free for Cash Orders value 3/6.

**JONES, F.R.H.S.,** Forest Lodge Nurseries,  
**GOWRAN.**

From a Photo of one of my 3-year-old trees growing in the Nursery. This is my type of 1/2-Standard.

Telegrams: "JONES, GOWRAN."

Nurseries, 17 acres. Seed Dept.—68 High Street, KILKENNY.

SOME LARGE PRIZES OPEN  
TO IRELAND  
For Vegetables, Fruit, Flowers,  
Honey, Eggs, Butter.

# ATHLONE SHOW, AUGUST 20th, 1908.

5,000 PRIZE SCHEDULES  
IN CIRCULATION.  
Apply—HAROLD SMITH,  
*Hon. Sec.,*  
Montree, Athlone.

A Special Feature of this Show will be

## A Grand Display of Irish Horticultural Products

Organized with the assistance of the well-known Firms whose Joint Advertisement appears below. See also their Special Announcements in the Prize Schedule and Programme.

### The ASHBOURNE COMPANY, 15 Parliament Street, Dublin.

Seeds and Plants for Farm and Garden.

See our Special Exhibit at Show, from our own Nurseries, "the most elevated in Ireland."

### JONES, F.R.H.S., Forest Lodge Nurseries, **Gowran.** And 68 High Street, Kilkenny.

"Best Value" in Fruit Trees.

"Equal Value" in Forest Trees.

"Great Value" in everything

### 600,000 FOREST TREES

were exported by

### WM. POWER & CO., Nurserymen, WATERFORD,

During the past season to England, Scotland,  
and Wales.

### WM. TAIT & CO., 119 & 120 CAPEL STREET, DUBLIN,

Have presented a Special Prize for the  
Best Collection of Three Vegetables.

*See Schedule, page 41.*

### ALEX. DICKSON & SONS, Ltd., Seedsmen & Nurserymen, 61 Dawson Street, Dublin.

Also at Belfast, Newtownards, Blackrock, and Ledbury.

### SAMUEL McGREDY & SON, PORTADOWN,

*The Specialists in Rose and Fruit Trees.*

SEEDS AND BULBS ONLY THE BEST.

Write for Illustrated Lists free.

By Appointment



Florists and Nurserymen  
to His Majesty  
the King in Ireland.

### Chas. Ramsay & Son, The Royal Nurseries, BALLSBRIDGE, DUBLIN,

Have presented a Special Prize,  
and will put up an Exhibit at  
Athlone Show.

### WM. WATSON & SONS, Ltd.,

Nurserymen and **CLONTARF,**  
Florists,

And 18F NASSAU STREET, DUBLIN.

*Please mention this "composite" advertisement when writing to advertisers.*

# CROSS'S "GARDEN FERTILISER,"

GARDEN SEEDS,

Alex. CROSS & SONS, Ltd.,  
Horticultural Specialists,  
GLASGOW.

(Almost 100 YEARS Established.)

AND INSECTICIDES.

On Sale by ALL SEEDSMEN.



**The PARAGON PEA TRAINER**

(PATENT).

SUITS any length of row. Easily put up or taken down. An ornament in the garden, keeping the growing Peas in neat straight lines. No trouble, always ready and will last for years with only a few pence outlay for any necessary renewal of training wire.

Excellent for Sweet Pea.

What users say in 1907:—

"I am delighted with my Pea Trainers, they are just splendid."—BALFE.

"The Trainer worked very well with me and kept the Peas neat and tidy."—DUBLIN.

"Send me another Pea Trainer same as I had last year."—REYNARD.

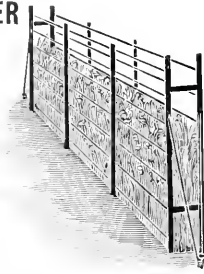
Prices in sets complete:—

12 ft. row	4 ft. high	7/6	5 ft. high	9/6
18	4	9/6	5	12/-
24	4	11/6	5	14/6
30	4	13/6	5	17/6

Carriage paid to nearest station.

Write for fuller particulars.

**PARAGON PEA  
TRAINER CO.,**  
Bridge St., Banbridge  
Co. Down.

**"GARDEN FLOWERS, 1908"**

(ILLUSTRATED).

Watson's new catalogue of Herbaceous Perennials, post free on request, containing descriptive lists of their **GOLD MEDAL** collections of **HARDY PLANTS**: Carnations, Delphiniums, Michaelmas Daisies, Paeonies, Phloxes, Pyrethrums, and numerous Herbaceous and border plants for planting now, to bloom abundantly this year.

**WM. WATSON & SONS, Ltd.,**  
CLONTARF NURSERIES,  
DUBLIN.

**CITY FLORAL BRANCH,**  
18 F NASSAU STREET.

The largest and most up-to-date Floral Establishment in Dublin. Orders booked now for **EASTER FLOWERS** and **DECORATIONS**.

PRICES MOST MODERATE.

**BECKER BROS.**

PRICES—  
2/5, 2/2, 2/-, 1/10, 1/8, 1/6, 1/4, 1/2.  
**TEAS.**  
PRICES—  
2/5, 2/2, 2/-, 1/10, 1/8, 1/6, 1/4, 1/2.

8 Sth. Gt. George's St.  
AND 17 Nth. Earl St. **Dublin.**

**SHANKS'S** WORLD-  
RENOWNED

**LAWN MOWERS**

**BRITISH MAKE THROUGHOUT.**

**HIGH-WHEEL "TALISMAN."**  
CUTS AS CLEAN AS A RAZOR.

THE BEST FOR  
GOLF GREENS.



FITTED  
WITH  
BALL  
BEARINGS.

**AN EXPERT'S OPINION.**

Herbert Park,  
Ballsbridge,  
DUBLIN, 20th December, 1907.

**SHANKS'S LAWN MOWERS** bore the brunt of the preliminary heavy work here; and in spite of the strain imposed on them by large stretches of late laid greensward and inevitable sprinkling of debris in the way of nails, bits of wire, &c., remaining after hand picking, they came through the ordeal unscathed, doing perfect work to the finish of the season.

I was particularly pleased with the High-Wheel "**Talisman**" and "**Britisher**," and think these Machines are as near perfection as it is possible to have Lawn Mowers.

(Signed) **EDWARD KNOWLDIN, F.R.H.S.**

Ironmongers, Implement Agents, and Seedsmen all sell them.

**ALEXR. SHANKS & SON, Ltd., Arbroath & London.** Established 70 YEARS.



One of our Ideal Double Begonias, grown and photographed without a stake to plant or bloom.

# Blackmore & Langdon's BEGONIAS

In Highest Quality for Exhibition, Conservatory, and Bedding Out.

Awarded 16 Gold Medals, 6 Silver Cups.

## SEED IN SEALED PACKETS.

Double, 2s. 6d. and 5s.; Single, 1s., 2s. 6d. and 5s. Single also in separate colours. Also frilled and crested Single.

## GRAND LARGE TUBERS, TO COLOUR.

Double, 5s., 12s. 6d., and 30s. per doz.; Single, 4s., 8s. and 20s. per doz. Mixed Doubles, 3s. 6d. per doz., 25s. per 100. Semi Doubles (cheapest bedders), 10s. per 100. Mixed Singles, 2s. 6d. per doz.; 7s. 6d. per 100.

Extra Frilled Single Begonias. Seed, 1s., 2s. 6d. and 5s.

## American Winter-Flowering and BORDER CARNATIONS.

A Grand Collection of all Sections. Our New Illustrated Catalogue, with Cultural Instructions, post free. Special offer during March and April of one dozen rooted Cuttings of American Carnations, in 12 choice varieties, for 6s.

## Twerton Hill Nursery, BATH.

Entirely  
Chemical.

# CANARY GUANO

Always  
Uniform.

THE BEST FERTILIZER IN THE WORLD.

USED IN EVERY CONTINENT.

*From Mr. G. Wythes, Head Gardener to the Duke of Northumberland, Syon Gardens, Brentford.*

I am much pleased with Canary Guano. I have found our lawns dressed with it have greatly benefited. It is most valuable for pot plants under glass. It is soon taken hold of by the roots and is a safe plant food.

Guaranteed  
Analysis  
with every  
Tin and Bag.

Sold by Seedsmen, &c., in 6d., 1/-, and 2/6 Tins. Bags, 14-lbs, 4/6; 28-lbs, 7/6; 56-lbs, 12/6; 1-cwt. 20/- each, or sent direct from Ipswich, carriage paid in United Kingdom, for cash with order. (6d. Tins 10d., 1/- Tins 1/3.)

Canary Guano is essential to secure perfection in Flower, Fruit and Foliage.

Write for pamphlet with particulars of 37 different Fertilizers, sent free and post paid, to the Sole Manufacturers.

**THE CHEMICAL UNION, LIMITED, IPSWICH.**

# GREEN'S MOWERS AND ROLLERS

Established nearly a Century.

BY SPECIAL WARRANT.

Appointed Makers



to His Majesty

King Edward VII.

**Are the Best in the World.**

Known and appreciated throughout the World.

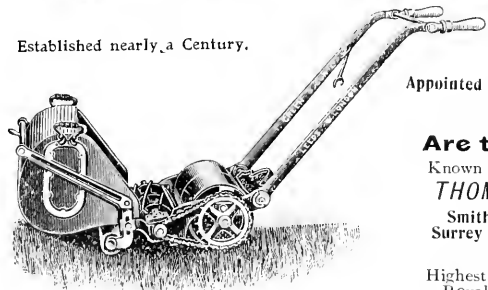
**THOMAS GREEN & SON, Ltd.,**

Smithfield Iron Works, Leeds, and New  
Surrey Works, Southwark St., London, S.E.

Please write for Price List.

Highest Awards, Royal Botanic Society, 1905-6;  
Royal Horticultural Society, 1905 and 1907.

**Sold by all Ironmongers.**



## To Lovers of their Gardens

You cannot do better than consult our Illustrated Guide for Amateur Gardeners, 164 large 4to pages, 190 illustrs. 2 beautifully coloured plates, and many cultural hints.

In it you will find catalogued every description of Vegetable and Flower Seeds, all of the finest quality, and at moderate prices.

It deals also largely with Nursery Stock—Fruit Trees, Roses, Plants, etc.—in fact with Everything Required for the Garden.

Our reputation has been built up on the QUALITY of the seeds and plants we sell.

Will be sent to all intending purchasers on receipt of 3d. to cover actual cost of postage.

**Daniels Bros. Ltd**  
BY APPOINTMENT TO H.M. THE KING  
**NORWICH.**

**WEEDS DESTROYED GRASS INVIGORATED**  
LAWNS, ON GOLF, TENNIS COURTS, BY BOWLING GREENS &  
**"CLIMAX" LAWN SAND**  
THE BEST DRESSING FOR WEEDY OR IMPOVERISHED LAWNS.  
TRY IT NOW.  
Sample tins, 1s., 2s., and 3s. 6d.; or 28 lb., to dress 100 square yards. 6s., carriage paid.  
Write for our Catalogue of Garden Helps.  
**BOUNDARY CHEMICAL CO. LTD. CRANMER ST. LIVERPOOL**

# LAWN MOWERS.

**THOMAS  
McKENZIE & SONS, LTD.,**

212 Great Brunswick Street,

**DUBLIN.**

By Royal Warrant  
Horticultural Machinery



Manufacturers of  
to H.M. THE KING.

## RANSOMES' LAWN MOWERS.

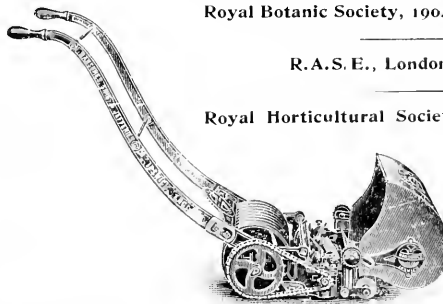
THE BEST IN THE WORLD.

Royal Botanic Society, 1904, 1905, and 1906—GOLD MEDALS.

R.A.S.E., London, 1904—SILVER MEDAL.

Royal Horticultural Society, 1906, 1907—SILVER MEDALS.

POSSESS  
IMPROVEMENTS  
CONTAINED  
IN NO  
OTHER MACHINES.



CHAIN OR WHEEL  
GEARING  
AS PREFERRED.

**Hand Power Machines**

In all kinds and sizes.

**Horse & Pony Machines**

For Large Lawns, Parks, &c.

**Motor Lawn Mowers**

Nearly 200 supplied.

ILLUSTRATED CATALOGUES FREE.

**RANSOMES, SIMS & JEFFERIES, LTD., IPSWICH.**

# WALSH'S GIANT FLOWERING SWEET PEAS

"THE BEST THAT GROW."

EXHIBITION COLLECTION,  
containing 21 Best Varieties, recommended by N. S. P. S.  
**4 6 POST FREE.**

## POPULAR COLLECTIONS.

No. 1 containing 25 selected varieties, about 1250 Seeds,	1/-
No. 2 " 25 " " " 2000 "	1 6
No. 3 " 25 " " " 4000 "	2 6

**POST FREE.**

Illustrated Seed Catalogue and Guide free on application.

# WALSH'S ROSES AND FRUIT TREES.

EXTRA STRONG, HARDY, WELL-ROOTED,  
TRUE TO NAME.

Hundreds of Thousands to select from.

*Descriptive List Free.*

**JAMES WALSH,** Seedsman &  
Nurseryman,  
**PORTADOWN.**

# "NICOTICIDE" Fumigant.

Half-gallon Tin, containing sufficient for 160,000 cubic feet	60/-	Carr. paid.
No. 1 size Tin—1 pint	30,000 "	
No. 2 size Tin—4 pint	12,000 "	
No. 3 size Bottle—6 oz.	8,000 "	
No. 4 size Bottle—4 oz.	6,000 "	
No. 5 size Bottle—1 oz. (sample)	2,000 "	10d.

## FUMIGATORS,

1/- each, for 5,000 cubic feet.

## NICOTICIDE PLANT WASH For Outdoors.

1/2 Pint, 1/2; Pint, 2/-;  
Quart, 3 6; 1/2 Gallon, 5/-  
Gallon, 10/-



**GOW'S WINTER ALKALI TREE WASH** for destroying Woolly  
Aphis, Scales, Lichen Moss and Apple Suckers, &c. Half-gallon, 2 6; Gallon, 5/  
carriage paid. One gallon will make 20 gallons solution.

**HUNTER & COW, 46 Thomas Street, LIVERPOOL.**

# SLUGS, WIREWORM & DESTROYED & PLANTS INVIGORATED

By a Dressing of "ALPHOL." A valuable Manure  
which Destroys Insect Pests in the soil without  
injury to the plants. Try it now. 28 lbs. will dress  
250 square yards. 7 lbs., 2/-; 14 lbs., 3/-; 56 lbs.,  
8 6; 1 cwt., 15/-. Every enquiry welcomed.

**BOUNDARY CHEMICAL CO. LTD. CRANMER ST. LIVERPOOL**

# NEW GIANT-FLOWERED

# SWEET PEAS.

## Edmondson's Eblana Collections

of the 25 Best New Giant-Flowered Sweet Peas.

25 Varieties, 40 Seeds each	...	...	1,000 Seeds for	1/6
25 do. 80 do.	...	...	2,000 do.	2/6
25 do. 175 do.	...	...	4,375 do	5/-

The "Minor Eblana" Collection ... 12 Choice Sorts, 1/-  
Eblana Mixture—1 quart, 5/-; 1 pint, 2/6; half-pint, 1/6; per oz., 3d.  
Giant-Flowered Mixture per lb., 5/-; half-lb., 2/6; per oz., 6d.

# EDMONDSON BROTHERS,

Seedsman, 10 Dame Street, DUBLIN.

200 Highest Awards; Gold Medals from all the Principal Exhibitions.

## PURE ICHTHEMIC GUANO.

The Most Reliable, The Richest Food, and the Most Natural Fertiliser

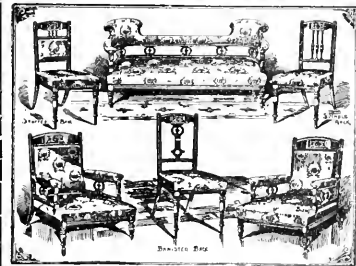
Supplied in Tins and Bags, 6d. to 20. Carriage paid on quantities of 25 lbs. and upwards.

**FAME'S FERTILISER.**  
Swift, Safe, and Sure.

Supplied in Tins and Bags, 6d. to 20. Carriage paid on quantities of 25 lbs. and upwards.

May be obtained from the principal Nurserymen, Seedsmen, Florists and Chemists, or DIRECT OF—

The Sole Proprietors and Manufacturers,  
**WM. COLCHESTER & CO.,**  
IPSWICH, England.



## FURNITURE

CARPETS  
CURTAINS  
LINOLEUMS  
BEDSTEADS, &c.

AT  
Lowest CASH Prices  
OR BY  
Gradual Payments.

TERMS and PRICE  
LISTS FREE.

**J. H. WEBB & CO., LTD.,**  
CORNMARKET, DUBLIN.

## Salva-Fruta.

FOR SPRAYING FRUIT TREES IN WINTER.

All Fruit Trees should be treated with this preparation; it effectively destroys every vestige of MOSS, LICHEN, AND GREEN SLIME, as well as the eggs of MOTHS, APHIDES, RED SPIDER, &c.

Salva-Fruta is a Powder, and is easily dissolved in cold water. It is put up in canisters of 1lb., 2lb., 4lb., and 10lb. each.

Full Directions and Prices can be obtained from the Manufacturers,

**The United Alkali Co., Ltd.,**  
GREENBANK WORKS,  
ST. HELENS, LANCASHIRE.

Or from all the principal Seedsmen in the United Kingdom.

IMPORTANT TO  
GARDENERS  
and Fruit Growers.



# "Niquas"

(Registered),

The most successful Non-poisonous Insecticide of the day.

ITS ADVANTAGES ARE—

Certain death to all Insect Pests.  
No possible injury to the most delicate Plant, Flower or Foliage.  
It is by far the cheapest Insecticide known. One pint makes ten to twelve gallons for Thrip, Black and Green Fly, etc., whilst RED SPIDER, Mealy Bug, and Scale can be thoroughly eradicated by using "NIQUAS," double or three times the strength required for Fly.

PRICES—Pint, 1/-; Quart, 1/9; Half-Gallon, 3/-; Gallon, 5/-; Kegs, each Five Gallons, 22/6; Ten Gallons, 42/6.

Ask for Testimonials, of which some hundreds have been received.

### SPECIMEN TESTIMONIAL.

From Mr. E. HUBBARD, Gardener to G. Hanbury, Esq., Blythwood, Burnham, Bucks, May 15th, 1906.

"I have been using your "NIQUAS" Insecticide for some years, and can with all confidence say it is the best I have ever used for Bug, Thrip, Red Spider, American Blight, and for all Insect Pests it has no equal. Also for the destruction of Maggots in Marguerites by dipping."

"I have recommended it to my friends generally."

## LETHORION

IMPROVED METAL

## VAPOUR CONE

FOR FUMIGATING.

At Greatly Reduced Prices.



(Registered Trade Mark.)

INTRODUCED 1885.

This well-known invention for the entire eradication of all pests infesting vegetation under glass is now manufactured in a more simple and reliable form. The small candle, which will be found packed with each cone, has only to be lighted, and placed on the ground in the centre of the Cone Frame, to produce immediate results. Nothing on the market can equal it for efficacy and cheapness.

Cone No. 3, for a well-secured house of cubic 2,000 to 2,500 feet, 1/- each. Cone No. 2, for a well-secured house of cubic 1,000 to 1,200 feet, 8d. each. Cone No. 1, Carbon, for frames of cubic 100 feet, 6d. each. Full directions accompany each Cone.

Ask for a List of Testimonials, of which some hundreds have been received from the leading gardeners in the Kingdom.

To be had from all Seedsmen and Florists.

MANUFACTURED BY

**CORRY & CO., LTD.,**

At their Bonded Chemical Works,

**SHAD THAMES, S.E.**

Office & Show Rooms:—13 & 15 Finsbury St., London, E.C.

## Miscellaneous Section.

**"XL ALL"** Vaporising Compounds and Insecticides (non-poisonous and poisonous). **"XL ALL"** Weed Killer and Fertilizer, New Green Sunshade, &c. **"XL ALL"** Specialities are used and sold by Nurserymen, Seedsmen and Florists all over the United Kingdom. Manufacturer will send Price List by return, and give address of nearest Agent. Poisonous preparations only sent direct when Agent cannot supply. Be sure you get the original inventions—**"XL ALL."**

G. H. RICHARDS,

234 BOROUGH, LONDON, S.E.

**J.** NESS & CO., 12 Sandside, Scarborough, Garden and Lawn Tennis Boundary Net Makers; also Rabbit, Stag, Fishing, Cricket, and other Nets.

**P**ROTECT YOUR GARDENS.—Netting, strong, small mesh, 100 yds. by 1 yd., 4s.; by 2 yds., 8s.; by 3 yds. wide, 12s.; any width or length can be supplied; orders over 5s. carriage paid.—H. J. GASSON, Net Works, Rye.

**F**IRST-CLASS STRAWBERRY PLANTS, 3s. 6d. and 5s. per 100.—BURROWS, Strabane.

**T**HRIM AGRICULTURAL & HORTICULTURAL SOCIETY. The Committee of the above Society have fixed date for holding Show for Tuesday, August 18th, 1908. PATRICK HEALY, Secretary.

**V**IOLET RUNNERS.—This Season's Planting. Luxonne, the best winter Violets. Price 2s. per 100; 12s. per 1,000, post free. Apply early. J. H. MILLS, Greenmount, Ballydehob, Cork.

**L**AWN MOWERS.—All makes. Lowest rates. Repairs to Lawn Mowers. Latest and only up-to-date Automatic Machinery used, under supervision of Lawn Mower Specialists. Machines sent for and delivered. Estimates given, lowest rates.—THE DAIRY ENGINEERING COMPANY OF IRELAND, 21 and 22 Bachelor's Walk, Dublin. Telephone—912. Telegrams—"Experience," Dublin.

**I**F YOU HAVE A GLASS ROOF THAT LEAKS, a Conservatory to repair, or any kind of glazing work to be done, CARSON'S PLASTINE will save money, time, worry and annoyance consequent on the use of ordinary putty which cracks, crumbles, and decays. It saves the expense of constant renewals. Carson's Wood Preservative in green and brown, for Palings, Trellis Work, &c. The best paint for Greenhouses is "Vitrolite." Write for Catalogue. CARSON'S, 22 Bachelor's Walk, Dublin.

**T**HE JOYS OF GARDENING are realized by using "The Ashbourne" Garden Fertilizer. The most concentrated and Complete Manure for Horticultural purposes. One and a half times as powerful as the largely advertised Garden Fertilizers in commerce—therefore more economical. Prepared on the most up-to-date methods. Of general uniform quality, highest solubility, with constituents correctly balanced for promoting a healthy, vigorous plant growth—per stone, 2s. 6d.; per cwt., 14s. 6d. THE ASHBOURNE COMPANY, Nurserymen, Parliament Street, Dublin.

## ATHBOY "DAFFYDOWNDILLY."

A Flower, Vegetable, and Cottage Produce Show

WILL BE HELD IN THE  
NATIONAL SCHOOLS, ATHBOY,

On Tuesday, April 21st, 1908.

Open, Amateur, and Cottager Classes. Liberal Prizes for Flowers, Vegetables, &c.; also for Butter, Eggs, and Home-made Bread. Entries close on Monday, April 6th. For Schedules and Entry Forms apply to the Hon. Secs., C. K. DOUGLAS and C. W. PARR, Parkstown, Ballivor, Co. Meath. Show opens 1.30 p.m.

Admission, 1s.; from 4.30 to 6.30, 6d.

SECOND AND CHEAPER EDITION. JUST PUBLISHED  
Fcap. 8vo, Cloth, 438 Pages, 113 Illustrations. 4s. 6d. net.

## The Horticultural Note Book

A MANUAL OF

PRACTICAL RULES, DATA, AND TABLES

For the use of Students, Gardeners, Nurserymen, and others interested in Flower, Fruit, and Vegetable Culture, or in the Laying-out and Management of Gardens.

By J. C. NEWSHAM, F.R.H.S.,

Headmaster and Manager of the Hampshire County Council Agricultural and Horticultural School.

London: CROSBY LOCKWOOD & SON,

7 Stationers' Hall Court, E.C., and 121A Victoria Street, S.W.

## WALSH'S GIANT-FLOWERING SWEET PEAS.

Cheapest offer in the Trade. All tested (unequalled). No. 1 Collection, containing 25 varieties, 1,250 Seeds, 1s., post free; No. 2 Collection, containing 25 varieties, 2,000 Seeds, 1s. 6d., post free. Catalogues free. JAS. WALSH, Seedsman, Portadown.

**N**OTICE.—Don't stake your Carnations till you have seen PORTER'S IMPROVED COIL STAKE. No tying required; Stakes last a lifetime. The greatest boon ever offered to growers. Only wants seeing. 7s. 6d. per 100; sample dozen, 1s. Carriage paid. Cash with order.—A. PORTER, Stone House, Maidstone.

## Vegetable, Flower, and Farm Seeds

From the Finest Stocks and Strains in Cultivation.

Catalogue Post Free.

**Browne, Thompson & Co.,**  
Seedsmen, CORK.

Telegrams—"THOMPSON, SEEDSMAN, CORK."

## KILLARNEY FERNS

(*Trichomanes Radicum*)

**F**OR SALE.—Splendid specimens, 1s. per leaf.—ST. CATHERINE'S, Rathfarnham, Co. Dublin.

**SALT.** Gardens and Orchards are much improved by using Ground Rock Agricultural Salt. For particulars apply—FLOWER & McDONALD, 14 D'Olier St., Dublin.

## Miscellaneous Section.

### Gardeners looking for the Best

and cheapest **Shading** to paint outside glass, to stick on all the Summer should ask for **Richards' "Sunshade,"** in dry powder to mix with water. Simple, cheap, and effectual. Gardeners anxious for the best **Fertilizer** should ask for **Richards' "XL ALL,"** for Pot Plants, Fruit Trees, Kitchen Garden, and Lawn. Ask your Nurseryman or Seedsman for my small pink Price List of the world-renowned **"XL ALL"** Specialities, Fumigators, Compounds, Insecticides, Weed Killers, &c.

Supplies from Nurserymen, Seedsman, and Florists throughout the world. Be sure that you get the original patented inventions **"XL ALL."**

**G. H. RICHARDS,**

**234 Borough, LONDON, S.E.**

**EAST WICKLOW HORTICULTURAL SOCIETY.** Annual Show, Grounds, Grand Hotel, Greystones. Silver Plaque for best Nurserymen's Display. Schedule on application to HON. SECRETARIES.

**TRIM AGRICULTURAL & HORTICULTURAL SOCIETY.** The Committee of the above Society have fixed date for holding Show for Tuesday, August 18th, 1908. **PATRICK HEALY, Secretary.**

**IF YOU HAVE A GLASS ROOF THAT LEAKS,** a Conservatory to repair, or any kind of glazing work to be done, **CARSON'S PLASTINE** will save money, time, worry and annoyance consequent on the use of ordinary putty which cracks, crumbles, and decays. It saves the expense of constant renewals. Carson's Wood Preservative in green and brown, for Palings, Trellis Work, &c. The best paint for Greenhouses is **"Vitrolite."** Write for Catalogue. **CARSON'S, 22 Bachelor's Walk, Dublin.**

**THE JOYS OF GARDENING** are realized by using **"The Ashbourne"** Garden Fertilizer. The most concentrated and Complete Manure for Horticultural purposes. One and a half times as powerful as the largely advertised Garden Fertilizers in commerce—therefore more economical. Prepared on the most up-to-date methods. Of general uniform quality, highest solubility, with constituents correctly balanced for promoting a healthy, vigorous plant growth—per stone, 2s. 6d.; per cwt., 14s. 6d. **THE ASHBOURNE COMPANY, Nurserymen, Parliament Street, Dublin.**

**200 Highest Awards: Gold Medals from all the Principal Exhibitions.**

### PURE ICHTHEMIC GUANO.

**The Most Reliable, The Richest Food, and the Most Natural Fertiliser.**

Supplied in Tins and Bags, **6d. to 20.** Carriage paid on quantities of 28-lbs. and upwards.

**FAME'S FERTILISER.**  
**Swift, Safe, and Sure.**

Supplied in Tins and Bags, **6d. to 20.** Carriage paid on quantities of 28-lbs. and upwards.

May be obtained from the principal Nurserymen, Seedsman, Florists and Chemists, or **DIRECT OF—**

**The Sole Proprietors and Manufacturers,**

**WM. COLCHESTER & CO.,**  
**IPSWICH, England.**



### LARNE FLOWER SHOW AND HOME INDUSTRIES ASSOCIATION.

THE

## ANNUAL SHOW

OF

**Flowers, Fruit, Vegetables, Farm Produce, and Home Industries Department,**

WILL BE HELD IN

**LARNE MARKETS YARD,**

**On Thursday and Friday, 20th & 21st August, 1908.**

SCHEDULES and other information may be obtained on application to the General Secretary,

**EARLE MCGOWAN,**

**9 CLONLEE, LARNE.**

**J. NESS & CO.,** 12 Sandside, Scarboro', Garden and Lawn Tennis Boundary Net Makers; also Rabbit, Stag, Fishing, Cricket, and other Nets.

**PROTECT YOUR GARDENS.**—Netting, strong, small mesh, 100 yds. by 1 yd., 4s.; by 2 yds., 8s.; by 3 yds. wide, 12s.; any width or length can be supplied; orders over 5s. carriage paid.—**H. J. GASSON, Net Works, Rye.**

### THE SCOTCH FLAME FLOWER

(*Tropaeolum Speciosum.*)

I can supply **extra strong** pots of this popular climber at **5/-** and **7/6** per dozen, with directions for planting. **100** different named **Rockplants**, for any position my customer likes to name, for **28/6**; **50** for **14/6**; **25** for **7/9**; from pots or ground. Send for List.

**Wood's Plant Club Label** is the best permanent metal label.

**J. WOOD, Boston Spa., S.O., YORKSHIRE.**

**NOTICE.**—Don't stake your Carnations till you have seen **PORTER'S IMPROVED COIL STAKE.** No tying required; Stakes last a lifetime. The greatest boon ever offered to growers. Only wants seeing. 7s. 6d. per 100; sample dozen, 1s. Carriage paid. Cash with order.—**A. PORTER, Stone House, Maidstone.**

**LAWN MOWERS.**—All makes. Lowest rates. Repairs to Lawn Mowers. Latest and only up-to-date Automatic Machinery used, under supervision of Lawn Mower Specialists. Machines sent for and delivered. Estimates given, lowest rates.—**THE DAIRY ENGINEERING COMPANY OF IRELAND, 21 and 22 Bachelor's Walk, Dublin.** Telephone—912. Telegrams—"Experience," Dublin.

**SALT.** Gardens and Orchards are much improved by using Ground Rock Agricultural Salt. For particulars apply **FLOWER & McDONALD, 14 D'Olier St., Dublin.**



**The PARAGON PEA TRAINER**

(PATENT).

SUITS any length of row. Easily put up or taken down. An ornament in the garden, keeping the growing Peas in neat straight lines. No trouble, always ready and will last for years with only a few pence outlay for any necessary renewal of training wire.

Excellent for Sweet Pea.

What users say in 1907:—

"I am delighted with my Pea Trainers, they are just splendid."—BAUFF.

"The Trainer worked very well with me and kept the Peas neat and tidy."—DUBLIN.

"Send me another Pea Trainer same as I had last year."—RECCARTON.

Prices in sets complete:—

12 ft. row	4 ft. high	7/6.	5 ft. high	9/6
18 "	4 "	9/6.	5 "	12/-
24 "	4 "	11/6.	5 "	14/6
30 "	4 "	13/6.	5 "	17/6

Carriage paid to nearest station.

Write for fuller particulars.

**PARAGON PEA  
TRAINER CO.,**  
Bridge St., Banbridge,  
Co. Down.

**Encourage Home Industry!**

We can supply you with Greenhouses, Poultryhouses, Dog Kennels and all Appliances 25 per cent. less than the foreigner.

**McLOUGHLIN & CO.,**

Horticultural, Canine and Poultry Appliance  
Manufacturers,  
15 Berkeley Street, DUBLIN.

**ROWAN'S**

**Turnips.**—Purple and Yellow Aberdeen, Pomeranian White Globe, Devonshire Greystone, Fosterton Hybrid, for present sowing.  
Dutch Sowing Rape—Direct Imported.

**Cabbage Seed.**—Selected Non-pareil, Ellam's Early, Meins' No. 1, Flower of Spring, Market Garden.

*Catalogue Post Free.*

**M. ROWAN & Co.,**  
Seed, Bulb, Plant Merchants,  
51 & 52 CAPEL ST.,

**DUBLIN.**

TELEPHONE 672.

**NON-POISONOUS**

**ABOL** WHITE'S SUPERIOR.  
The Best Plant Wash for Garden and  
Greenhouse.  
Kills Mildew.

it  
absolutely

**ABOLISHES**  
Green and Black Fly,  
American Blight,  
Caterpillars, **APHIS**  
and all kinds of

MANUFACTURED UNDER A NEW PATENT.

**TRY IT** and you will agree. "It acts like a charm," also "an excellent remedy for mildew," "a little goes a long way."

$\frac{1}{2}$ -Pt., 1/- Pt., 1/6. Qt., 2/6.  $\frac{1}{2}$ -Gall., 4/- Gall., 7/6.

**"Abol" Syringe****Best Sprayer.**

Does more and better work than  
other syringes double the size.  
TRY IT, and you will agree.



THE "ABOL" SYRINGE.

Prices:—Syringes, 8/6 to 14/6. Postage, 4d.  
Bends, 1/6 extra.

Of all Seedsmen, Florists and Ironmongers, or on receipt  
of remittance from the

SOLE MANUFACTURERS—**E. A. WHITE, Ltd.,**  
Hop and Fruit Growers, **Paddock Wood, KENT.**

## TAIT'S GARDEN SEEDS ARE THE BEST.

Carriage Paid.

Selected Vegetable Seeds.

Choicest Flower Seeds.

Imported Seed Potatoes.

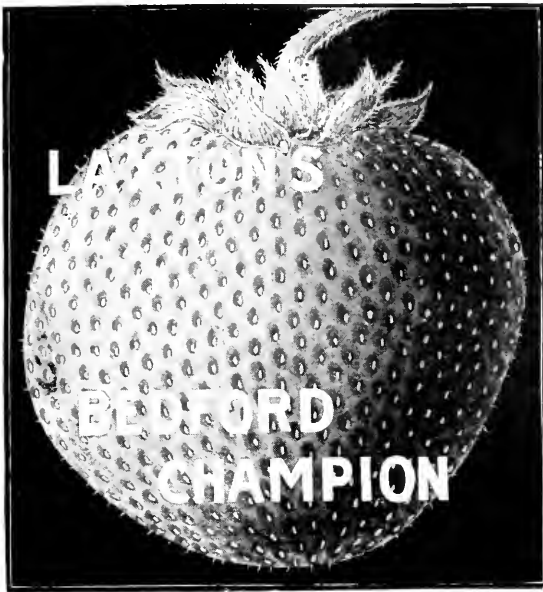
Every Requisite for the Garden.

Call or write for Tait's Annual List, post free.

**W. TAIT & CO.,**

Seed Merchants,

119 &amp; 120 Capel St., DUBLIN



## LAXTON'S New Strawberries for 1908.

INCLUDING ALL THE BEST STANDARD  
VARIETIES FOR MARKET PURPOSES  
— AND FOR PRIVATE GARDENS. —

THE LARGEST CULTURES IN EUROPE,  
GROWN SPECIALLY FOR RUNNERS.

*A full Catalogue and Price List will be sent on application.*

# LAXTON BROTHERS, BEDFORD.

## EDMONDSON'S PRIZE BEE HIVES

The C. D. B.  
The Two-Crate.  
The No. 1.

Bar Frames, Sections,  
Comb Foundation, and  
all Bee-keepers' Appliances.

*Illustrated Price List Free.*

## EDMONDSON BROS., 10 Dame St., DUBLIN.





## ARTISTIC ILLUSTRATION BLOCKS

Nowadays nobody will look twice at an advertisement or a catalogue unless a pictorial appeal is made to the eye

BUT THE BLOCKS  
MUST BE GOOD

Send for our free Art Booklet, which will give an idea of the class of work we are doing

**Irish Photo Engraving Co.**

33 WESTLAND ROW, DUBLIN

Official Engravers to IRISH GARDENING since its first issue

## . . . MY . . . CACTUS DAHLIAS

Which have won for me 17 Gold and Silver Medals all over Ireland, and have never been beaten at R.H.S.I. Shows, include the very finest varieties only, and are quite the best in Ireland.

Price from 3/6 Dozen upwards.

### EARLY AND LATE FLOWERING CHRYSANTHEMUMS

are also extra choice, and very select ; I grow these by the thousand.

List Free.

**BEDDING PLANTS** in all usual varieties are done in very large quantities and splendid quality.

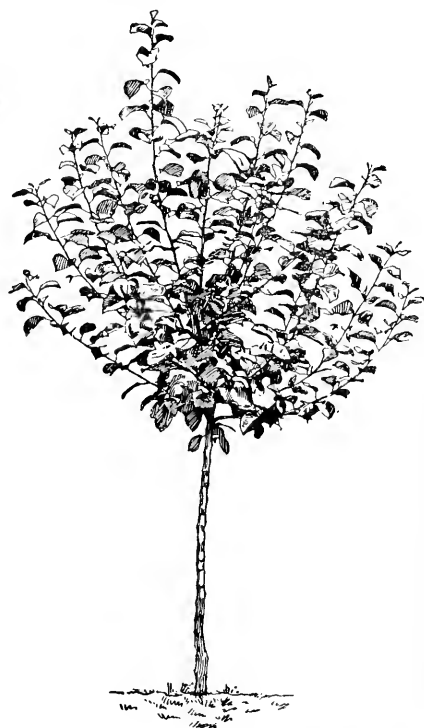
Lists now ready.

All Dahlias, Mums, and Bedding Plants free for Cash Orders value 3/6.

**JONES, F.R.H.S.,**

Forest Lodge Nurseries,  
**GOWRAN.**

Telegrams : "JONES, GOWRAN."



From a Photo of one of my 3-year-old trees growing in the Nursery. This is my type of  $\frac{1}{2}$ -Standard.

Nurseries, 17 acres. Seed Dept.—68 High Street, KILKENNY.



# Important Notices.

## SPECIAL NUMBER.

In view of the great SUMMER SHOW of the ROYAL HORTICULTURAL SOCIETY, to be held next month, we propose to issue a Special Number of IRISH GARDENING for August.

**A**MONG other features we have arranged to give an article on the work of local Horticultural Societies and Shows, and would be glad if Secretaries would kindly write to us, giving in each case the exact title of the Society, terms of membership, aims and objects of the Society, number of shows held in the year, and name and address of Secretary.

To illustrate an article on "How to Beautify the Home," we are anxious to secure three photographs of an Exterior, for which we offer a "prize" of 10s. for the best, and 5s. and 3s. 6d. for the second and third next best. In all cases they must be Irish views.

### LIST OF CONTRIBUTORS.

**F**OR the information of new Subscribers we give a List of authoritative writers whose contributions have appeared from time to time in our pages.

#### Cultivation of Plants.

C. F. Ball, Botanic Gardens, Glasnevin.  
E. H. Bowers, County Horticultural Instructor.  
James Bracken, County Horticultural Instructor.  
Peter Brock, County Horticultural Instructor.  
Dr. O'Donel Browne (Roses).  
J. A. Cavanagh, The Gardens, Portrairie.  
J. C. Carolin, County Horticultural Instructor.  
A. Campbell, The Gardens, St. Anne's.  
J. Devine, The Gardens, Maryville.  
G. Doolan, Horticultural Instructor.  
J. Fraser, F.L.S., Editor, *Gardening World*.  
Wm. Johnston, County Horticultural Instructor.  
F. Hudson, County Horticultural Instructor.  
W. P. Irving, Departmental Fruit Expert.  
P. Mahon, The Gardens, Killeen Castle.  
W. J. Mitchison, The Gardens, Mullaboden.  
F. W. Moore, Director, Botanic Gardens, Glasnevin.  
Thomas Ryan, The Gardens, Castlewellan.  
T. Scott, County Horticultural Instructor.  
J. G. Toner, County Horticultural Instructor.  
W. Tyndall, County Horticultural Instructor.  
C. Wakely, Essex County School of Horticulture.

#### Trees and Shrubs.

R. Anderson, Superintendent, Phoenix Park.  
J. W. Besant, Botanic Gardens, Glasnevin.  
A. C. Forbes, Director, Forestry Station, Avondale.  
Hon. Vicary Gibbs.  
A. E. Moeran.

#### Soils and Manures.

Dr. Bernard Dyer.  
A. D. Hall, M.A., Director, Rothamsted Agricultural Research Station.  
J. W. McKay, A.R.C.S. of I.  
Professor James Wilson, M.A., B.Sc.

#### Plant Physiology, Diseases and Injuries.

J. Adams, M.A.  
Professor George H. Carpenter, B.Sc.  
F. J. Chittenden, Director, Wesley Research Station of the R. H. S. of England.  
Rev. Professor Henslow, M.A.  
Miss R. Hensman, Seed Testing Station.  
Professor T. Johnston, D.Sc.  
George H. Pethybridge, B.Sc., Ph.D.  
G. Sherrard.  
H. W. Unthank, B.A., B.Sc.

#### Miscellaneous.

F. Bedford, The Gardens, Staffon.  
P. Gray, Albert Agricultural College.  
C. H. Curtis, Hon. Sec., National Sweet Pea Society.  
Padraic Colum, Author of "Wild Earth."  
Edward Knowlton, Sec. R.H.S. of I.  
T. Maguire (Bees).  
Arch. Malcolm, Duns, N.B.  
J. C. Newsham, F.L.S., Author of "The Horticultural Note Book."  
Miss Charlotte O'Brien.  
Miss R. M. Pollock, Royal Botanic Gardens, Glasnevin.  
R. Lloyd Praeger, B.A.

SOME LARGE PRIZES OPEN  
TO IRELAND  
For Vegetables, Fruit, Flowers,  
Honey, Eggs, Butter.

# ATHLONE SHOW, AUGUST 20th, 1908.

5,000 PRIZE SCHEDULES  
IN CIRCULATION.  
Apply—HAROLD SMITH,  
*Hon. Sec.,*  
Montree, Athlone.

## A Special Feature of this Show will be A Grand Display of Irish Horticultural Products

Organized with the assistance of the well-known Firms whose Joint Advertisement appears below. See also their Special Announcements in the Prize Schedule and Programme.

### The ASHBOURNE COMPANY, 15 Parliament Street, Dublin.

Seeds and Plants for Farm and Garden.

See our Special Exhibit at Show, from our own Nurseries, "the most elevated in Ireland."

### JONES, F.R.H.S., Forest Lodge Nurseries, **Gowran.** And 68 High Street, Kilkenny.

"Best Value" in Fruit Trees.

"Equal Value" in Forest Trees.

"Great Value" in everything.

**600,000 FOREST TREES**  
were exported by

### WM. POWER & CO., Nurserymen, WATERFORD,

During the past season to England, Scotland,  
and Wales.

### WM. TAIT & CO., 119 & 120 CAPEL STREET, DUBLIN,

Have presented a Special Prize for the  
Best Collection of Three Vegetables.

*See Schedule, page 41.*

### DAVID HENRY, Nurseryman and Seedsman, CARLOW,

Headquarters for all kinds of Plants.

BEDDING PLANT SPECIALIST.

See Advertisement in this issue. See Exhibit at Show.

### ALEX. DICKSON & SONS, Ltd.,

Seedsman & Nurserymen,  
61 Dawson Street, Dublin.

Also at Belfast, Newtownards, Blackrock, and Ledbury.

### SAMUEL McGREDY & SON, PORTADOWN,

*The Specialists in Rose and Fruit Trees.*

SEEDS AND BULBS ONLY THE BEST.

Write for Illustrated Lists free.

By Appointment



Florists and Nurserymen  
to His Majesty  
the King in Ireland.

### Chas. Ramsay & Son,

The Royal Nurseries,  
BALLSBRIDGE, DUBLIN,

Have presented a Special Prize,  
and will put up an Exhibit at  
Athlone Show.

### WM. WATSON & SONS, Ltd.,

Nurserymen and  
Florists, CLONTARF,

And 18F NASSAU STREET, DUBLIN.

*Business Established 1777.*

### SIR JAMES W. MACKEY, LTD.,

SEEDSMEN AND NURSERYMEN,

23 Upper Sackville Street, DUBLIN.

See the Prize Schedule, page 42.  
Everything for Garden and Farm.

The Athlone Show also affords an unique opportunity for seeing the actual results of recent efforts to develop Rural Industries in the Midlands of Ireland. Convenient Trains at reduced fares from all parts.

*Please mention this "composite" advertisement when writing to advertisers.*

# FOR DESTROYING CATERPILLARS

On APPLES                      PEARS  
GOOSEBERRIES              CURRANTS  
ROSES and all other Trees

SPRAY WITH **SWIFT'S ARSENATE OF LEAD**

IT will supersede all other similar Insecticides, and is at present being used on the best Fruit Farms throughout England and the United States. **Experiments made in Ireland** last year with Swift's Arsenate of Lead **demonstrated its superiority** over Paris Green, London Purple, &c. See Department's Leaflet No. 85, and write for descriptive booklet with testimonials, &c.

**It kills all leaf-eating insects.**

**Suitable for all trees. It sticks on the leaves.**

**Rain will not wash it off.**

**No danger of burning or scorching the leaves.**

**Tends to produce better and larger fruit.**

**Used by many Irish fruit growers last year.**

## PRICES—

1lb. Tins	...	...	at 1s. per lb.	20lb. Wooden Pails	...	at 9½d. per lb.
5lb. Wooden Pails	...	...	10d. "	50lb. " Kegs	...	9d. "
10lb. " "	...	...	9½d. "	100lb. " "	...	8½d. "

**MANUFACTURED BY MERRIMAC CHEMICAL COY., BOSTON.**

Sole Irish Agent—

**D. M. WATSON, Chemist, 61 Sth. Gt. George's Street, Dublin.**

## SMITH'S 'PERFECT' WEED KILLER (Powder and Liquid).

### LIQUID.—Prices:

	s.	d.	8 gals.	£	s.	d.
1 gal.	2	0		0	12	6
2 "	3	9	10 "	0	14	0
3 "	5	6	12 "	0	17	0
4 "	7	0	16 "	1	2	6
5 "	8	0	18 "	1	5	0
6 "	9	6	20 "	1	8	0
40 gallons,	£2 10 0.					

One Gallon makes 25 Gallons for use. Packages extra, but allowed for on return.  
Carriage paid on 8 Gallons.

### An Irish Testimonial.

Glendaragh,  
Newtown-Mount-Kennedy,  
Co. Wicklow.

I obtained several tins of Smith's Patent Weed Killer Powder, and used the preparation last year on walks and avenue here. Where the Powder was used all weeds were destroyed, and the walks kept perfectly free from weedy growths for the season.

B. ST. G. DEANE,  
Commander R.N. (retired), J.P. for  
Co. Wicklow.

### POWDER.

**A Scientific Triumph!**  
**Nothing like it ever seen before!**  
**Immediately Soluble in cold water!**

*All Tins Free. No Return Empties.*

	£	s.	d.
1 Tin, sufficient to make 25 gals.	0	2	0
4 " " " 100 "	0	7	0
*8 " " " 200 "	0	12	6
*12 " " " 300 "	0	17	0
*20 " " " 500 "	1	8	0
†40 " " " 1,000 "	2	10	0

Carriage Paid on 8 Tins.

\* Box 6d. extra. † Box 1s. extra.

Irish Agent—

**D. M. WATSON, HORTICULTURAL CHEMIST,  
61 South Great George's St., DUBLIN.**

'Phone, 1971. Write for Booklet of Testimonials, &c.

## Answers to Correspondents—contd.

**PERENNIAL LOBELIA** ("Journeyman").—The fragment sent is one of the perennial lobelias (*Lobelia fulgens*). This and *L. cardinalis* are handsome plants, affording a truly gorgeous display in the herbaceous border from late summer until well on in the autumn. They have a stately habit, and bear rich crimson flowers of great brilliancy; but their most striking site, perhaps, is by the side of ponds or streams, with a background of iris. If planted in groups the colour effect is charming. Wherever grown these lobelias must be provided with plenty of moisture at the root, so that if they are grown in a border they will require a rich, loamy soil, intermixed with cow manure, to retain the moisture. Care must be taken to keep the soil moist during the whole growing season. They may be raised now from seeds or by division of "root," or by cuttings in the spring.

**AMERICAN GOOSEBERRY MILDEW.**—With the object of preventing the spread of this disease through the agency of salesmen forwarding packages which might carry diseased berries to owners of healthy plantations we hear that orders have been issued for strict watch to be kept in the different markets with a view to the prevention of such berries being exposed for sale.

**CELERY DISEASE.**—The cause of the yellowing and subsequent dying off of the leaves in specimens sent is due to the attack of a fungal parasite (*Septoria*). As the decolourised leaf areas are thickly covered with the microscopical pycnidia or fruit of the parasite all affected leaves should be carefully gathered and burned. Nothing can save the leaves already infected, but further infection of healthy plants may be prevented by spraying with Bordeaux mixture or other good fungicide.

**WINTER BERRIED TREES AND SHRUBS** ("W. I.")—The thorns (*Crataegus*) stand first. The fire-thorn (*C. pyracantha*) has clusters of fine red berries, firm and lasting if let alone by birds. Cockspur (*C. erus galli*) has scarlet berries, and *C. coccinea* yellow. The cotoneasters are well known, of which there are several species bearing scarlet fruits. You can secure brilliant orange berries in great abundance by planting sea buckthorn (*Hippophae rhamnoides*), but as these shrubs are one-sexual, to get berries you must order a few males with the female or berry-producing individuals. Yellow may be had by planting yellow-berried hollies. Lastly, the snowberry will give you white for your scheme.

**HYBRIDS** ("Young Gardener").—Please write more fully. In the meantime read an article on "The Non-Setting of Fruit" that appeared in this Journal last July. Carefully study Professor Wilson's article on "Mendelism" in the present number.

## Summer Bedding.

ON account of the quantity of worthless seedlings now advertised, which are merely taken from seed boxes and sold at prices for which it is not possible to grow good stuff, care should be taken when buying to procure sturdy plants which have been transplanted from the seed beds or grown singly in pots. In Geraniums, for example, it is useless to buy rooted cuttings from boxes, as they will take the most of the summer to become plants.

It is claimed by Messrs. WATSON & SONS, Ltd., Clontarf Nurseries, Dublin, that all their Geraniums, Begonias, and many other such plants are established in small pots, and packed for despatch with balls of soil intact; whilst seedlings, such as Asters and other annuals, are transplanted, nursed in cold frames, and finally hardened off. By devoting personal attention to their clients' orders and instructions Messrs. WATSON strive to ensure complete satisfaction. Packing is a feature, as they do not believe in growing good stuff and spoiling it by lack of care when being despatched. Of course the Railway Companies are often responsible for damage to perishable plants no matter how well packed, and, before taking delivery, purchasers should assure themselves that the packages have not been damaged or pilfered. If injured in any way the Railway Company will not be accountable for loss unless the injury is specified when signing for the goods or the delivery sheet marked "Not Examined."

Messrs. WATSON & SONS have published a neat booklet about Summer Bedding Plants which they will post without charge to any applicant.

**SLUGS, WIREWORM &c**  
**DESTROYED & PLANTS INVIGORATED**  
 By a Dressing of "ALPHOL." A valuable Manure which Destroys Insect Tests in the soil without injury to the plant. Try it now. 28 lbs. will dress 250 square yards. 7 lbs., 2/-; 14 lbs., 3/-; 56 lbs., 8/6; 1 cwt., 15/-. Every enquiry welcomed.  
**BOUNDARY CHEMICAL CO. LTD. CRANMER ST. LIVERPOOL**

SAFE

# Gardo

SURE

## AN INVALUABLE INSECTICIDE FOR GREENHOUSE and GARDEN.

Gardo is effectual for all kinds of Aphis and other insect pests. It is non-poisonous, soluble in water, and, if used according to instructions, does not discolour or leave any visible film on the foliage or flowers.

Gardo is used by some of the best amateurs and largest members of the trade at home and abroad. Sold in Tins: 1/-, 1/6, 2/6 and 4/- each. Drums: 1 gall. 7/6; 2 gall. 13/6; 5 gall. 30/- each, by Seedsmen, or sent direct from Ipswich on receipt of P.O.

Send a post card for full particulars and directions for use to

**THE CHEMICAL UNION, LIMITED, IPSWICH.**  
 MANUFACTURERS OF CANARY GUANO.



## Correspondence.

### HIGHWAY PLANTING.

SIR,—I have read with keen interest the letter from "Vintor" in this month's issue of IRISH GARDENING. The idea of setting to work to beautify our main roads is excellent. That the dwellers along the particular highway should themselves take the matter in hand is indeed a "happy thought." Not only would trees add to the attractiveness of the highway, but in these days of motors and smothering clouds of dust a screen of foliage would secure comparative cleanliness and comfort in the dwellings.

But in all such matters the greatest difficulty is the difficulty of overcoming the inertia of a body of people at rest. If some one with public spirit and with the necessary push would only make a start in his own particular section of road, form a small working committee, and then canvas the neighbourhood for support, perhaps something might be done. I believe there is an Irish Forestry Society in existence that extends its influence to the promotion of "Arbor Day" festivals. Surely such a work as that advocated by your correspondent should meet with a hearty support from the Society. It is not suggested that they should do the work, but it is suggested that they should enter into such movements with a progressive and missionary spirit, interesting and stimulating the public to think and to do, and so lend a real and immediate aid to suburban tree-planting.

ARBOR.

SIR,—"Vintor's" suggestion in the current number of IRISH GARDENING is altogether excellent. I really don't think that it requires either discussion or modification. The carrying out of such a plan would entail very little individual expense, and I am sure it only requires a few men holding "Vintor's" views and a faculty for organisation to get the work started next Autumn. What a difference it would make to the enjoyment of everyone either living along or using the road!—CYCLIST.

Established 1896.

Telephone 07 Y.

Window Cleaners, etc., to Shops, Offices, Warehouses, Private Residences, etc., Dublin and County.

**'DISHER'S,'**

House, Shop, and Office Cleaners, Linewashers, Whiteners, and Glazing Contractors,

**6 Fleet Street, DUBLIN.**

Disher's Cleaning and Disinfecting Composition will clean and disinfect your House, Shop, and Office throughout (without soap). 3s. 6d. Gallen Can delivered.



### WILMOT'S

#### Galvanized Steel Garden Tubs

Most useful thing in Garden at watering time. For Cottage Water Butts it is the best. As a Cheap Water Trough for Horses and Cattle. For Chaff, Bran, or Corn, nothing cheaper, when not used for Water. All for storing Seeds and Potatoes, and a hundred other purposes.

Gals.	20	30	40	50	60	80	100	120
Price	7 6	8 6	10	12 6	14	16 6	19 6	21 6

Also our RAIN-WATER CISTERNS, 40 to 1,000 Gallons, As used all over the Kingdom.

For Lists—S. M. WILMOT & CO., St. Philip's, BRISTOL. And of Ironmongers and Implement Agents.

# CROSS'S "GARDEN FERTILISER,"

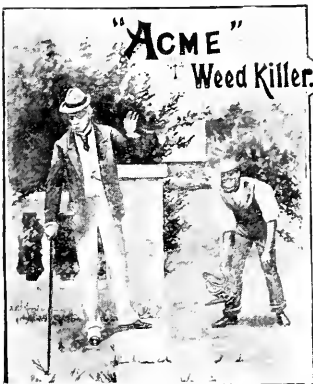
## GARDEN SEEDS,

Alex. CROSS & SONS, Ltd.,  
Horticultural Specialists,  
GLASGOW.

(Almost 100 YEARS Established.)

AND INSECTICIDES.

On Sale by ALL SEEDSMEN.



### CLEAN PATHS.

### CLEAN PLANTS.

Used in the Crystal Palace Grounds, the Royal Horticultural Society's Gardens, Kew, and in the principal Gardens of the United Kingdom.

**STRENGTH, 1 in 25. 1 Gall. to 25 Gallons of Water.**

1 Gall. 2s. 3d., tin free; 5 gall. 7s. 6d., drum, 2s. 6d.; 10 gall. 13s. 4d., drum, 5s.; 40 gall. 50s., cask, 5s. Carriage paid on 5 gallons and upwards.

**DOUBLE STRENGTH. 1 Gall. to 50 Gallons of Water.**

½ gall. 2s., tin free; 1 gall. 3s. 6d., drum, 9d.; 5 gall. 14s., drum, 2s. 6d.; 10 gall. 25s. 6d., drum, 5s. 40 gall. 90s., cask, 5s. Carriage paid on 2 gallons and upwards. Empties allowed for when returned.

### "ACME" POWDER WEED KILLER.

Sizes	Tins free	Per tin
No. 1	To make 25 gallons	1s. 9d.
No. 2	" 50 "	3s. 3d.
No. 3	" 100 "	6s. 0d.

Soluble in cold water. No. 3 carriage paid. Prices for larger quantities on application.

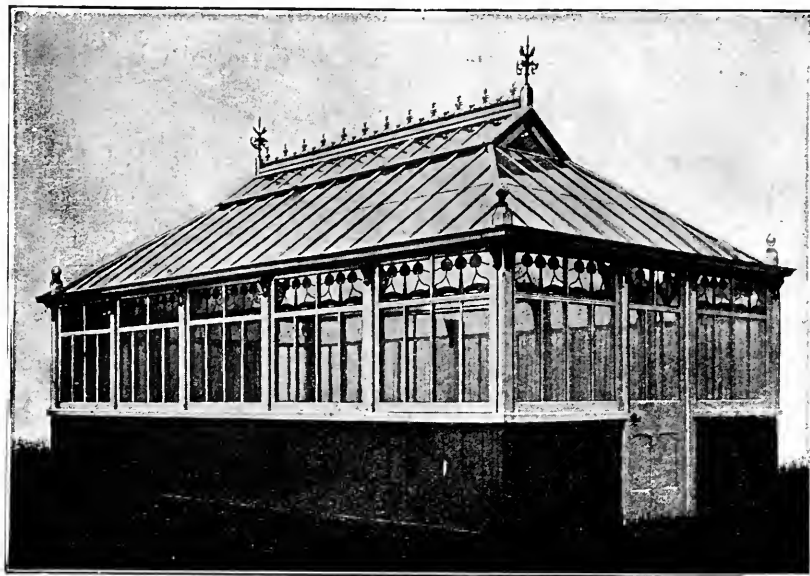
### COMPOUND QUASSIA EXTRACT INSECTICIDE.

Safest and best for all purposes. Certain death to Aphis, Red Spider, &c., &c. Sample pint sufficient for 10 galls., 1s. Post paid. Try it.

ACME CHEMICAL CO., Ltd.,  
TONBRIDGE, KENT & RIVER ST., BOLTON, LANCs.

Agents: HAYES, CONYNGHAM & ROBINSON, LTD., Chemists, 12 Grafton Street, DUBLIN.

"Weeds, weeds everywhere! I wonder if that new gardener can suggest anything?"  
"Yes, sir. I'm just using the 'Acme' Weed Killer. The best in the world for killing weeds."



# JAMES CRISPIN

& SONS, F.R.H.S.

. Supply all classes of .  
HORTICULTURAL  
. BUILDINGS,  
HEATING,  
VENTILATING,  
. and .  
DOMESTIC SUPPLY  
APPARATUS.

Please write for Catalogue Illustrating this and other Ornamental Conservatories.

Head Office: Nelson Street, BRISTOL.

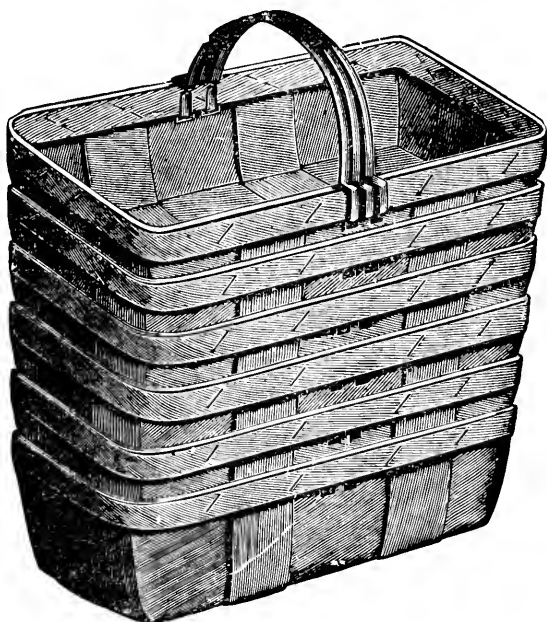
## INDISPENSABLE TO FRUIT GROWERS.

### New Woven Chip Baskets

with patent Tin  
Handle.

Write for Prices.

—❧—  
RECOMMENDED BY  
DEPARTMENT . . .  
OF AGRICULTURE.



IN TWO SIZES.

—❧—  
No. 4 holds  
4lbs. Fruit

No. 10 holds  
10 lbs. Fruit

—❧—  
Special low rate  
for quantities.

Thomas McKenzie & Sons, Ltd.

212 Gt. Brunswick Street, DUBLIN.

**WEEDS DESTROYED GRASS INVIGORATED**  
**LAWNS, ON GOLF, TENNIS COURTS, BY BOWLING GREENS & "CLIMAX" LAWN SAND**  
**THE BEST DRESSING FOR WEEDY OR IMPOVERISHED LAWNS.**  
**TRY IT NOW.**  
 Sample tins, 1s., 2s., and 3s. 6d.; or 28 lb., to dress 100 square yards, 6s., carriage paid.  
**Write for our Catalogue of Garden Helps.**  
**BOUNDARY CHEMICAL CO. LTD. CRANMER ST. LIVERPOOL**

## "NICOTICIDE" Fumigant.

Half-gallon Tin, containing sufficient for 160,000 cubic feet	60/-	
No. 1 size Tin—1 pint	40,000	15/-
No. 2 size Tin—1/2 pint	20,000	7/6
No. 3 size Bottle—6 oz.	12,000	4/6
No. 4 size Bottle—4 oz.	8,000	3/-
No. 5 size Bottle—1 oz. (sample)	2,000	10d.

**FUMIGATORS,**  
 1/- each, for 5,000 cubic feet.

**NICOTICIDE PLANT WASH For Outdoors.**  
 1/2 Pint, 1/2; Pint, 2/-;  
 Quart, 3/6; 1/2 Gallon, 5/-;  
 Gallon, 10/-

**GOW'S WINTER ALKALI TREE WASH** for destroying Woolly Aphis, Scales, Lichen Moss and Apple Suckers, &c. Half-gallon, 2/6; Gallon, 5/- carriage paid. One gallon will make 20 gallons solution.

**Gow's Slug and Wire-worm Destroyer, Lawn Sand, Daisy Eradicant, Tobacco Powder and Quassia Extract.**  
 Sold in 6d., 1/-, also 2/6 Tins and larger sizes.  
**INSIST ON YOUR SEEDSMAN SUPPLYING THEM.**

**HUNTER & COW, 46 Thomas Street, LIVERPOOL.**

**NEW AND RARE HARDY PLANTS SEE PERRY'S CATALOGUE, Hardy Plant Farm, Enfield, Middlesex.**

**LAWN MOWERS** sharpened and repaired by Automatic Machine. Lowest prices. **GARDEN SHEARS** and **EDGE TOOLS** ground. **STRAWBERRY PUNNETS.** **FRUIT BASKETS.** **BRODERICK & SON,** 11 and 12 CAPEL STREET, DUBLIN.

**BAYLISS JONES & BAYLISS LTD FOR ALL KINDS OF IRON FENCING**  
 VICTORIA WORKS WOLVERHAMPTON  
 LONDON OFFICES & SHOW ROOMS 139 & 141 CANNON ST. E. C.

DOG KETTEL & POULTRY RAILING CORRUGATED SHEETS TREE GUARDS WIRE NETTING ETC.

GARDEN ARCHES FRUIT ESPALIER LIGHT PURLOES ETC.

**IMPORTANT TO GARDENERS and Fruit Growers.**



# "Niquas"

(Registered),

**The most successful Non-poisonous Insecticide of the day.**

**ITS ADVANTAGES ARE—**

Certain death to all Insect Pests.  
 No possible injury to the most delicate Plant, Flower or Foliage.  
 It is by far the cheapest Insecticide known. One pint makes ten to twelve gallons for Thrip, Black and Green Fly, etc., whilst RED SPIDER, Mealy Bug, and Scale can be thoroughly eradicated by using "NIQUAS," double or three times the strength required for Fly.

**PRICES—Pint, 1/-; Quart, 1/9; Half-Gallon, 3/-; Gallon, 5/-; Kegs, each Five Gallons, 22/6; Ten Gallons, 42/6.**

Ask for Testimonials, of which some hundreds have been received.

**SPECIMEN TESTIMONIAL.**

From Mr. E. HUBBARD, Gardener to G. Hanbury, Esq., Blythwood, Burnham, Bucks, May 15th, 1906.

"I have been using your "NIQUAS" Insecticide for some years, and can with all confidence say it is the best I have ever used for Bug, Thrip, Red Spider, American Blight, and for all Insect Pests it has no equal. Also for the destruction of Maggots in Marguerites by dipping.

"I have recommended it to my friends generally."

## LETHORION

IMPROVED METAL

## VAPOUR CONE

**FOR FUMIGATING.**

**At Greatly Reduced Prices.**



Registered Trade Mark.)

**INTRODUCED 1885.**

This well-known invention for the entire eradication of all pests infesting vegetation under glass is now manufactured in a more simple and reliable form. The small candle, which will be found packed with each cone, has only to be lighted, and placed on the ground in the centre of the Cone Frame, to produce immediate results. Nothing on the market can equal it for efficacy and cheapness.

Cone No. 3, for a well-secured house of cubic 2,000 to 2,500 feet, 1/- each. Cone No. 2, for a well-secured house of cubic 1,000 to 1,200 feet, 8d. each. Cone No. 1, Carbon, for frames of cubic 100 feet, 6d. each. Full directions accompany each Cone.

Ask for a List of Testimonials, of which some hundreds have been received from the leading gardeners in the Kingdom.

**To be had from all Seedsmen and Florists.**

MANUFACTURED BY

**CORRY & CO., LTD.,**

At their Bonded Chemical Works,

**SHAD THAMES, S.E.**

Office & Show Rooms:—13 & 15 Finsbury St., London, E.C.

Registered **"SHEFA"** Trade Mark  
**CASH WITH ORDER.**

**ODOURLESS! CLEAN! SOLUBLE!**  
 An improvement on all other fertilizers for Garden and Greenhouse. Exceptionally High Analysis. Economical. Will appeal to Ladies. Brings Flowers, Fruit, and Vegetables to perfection. Commence using now. Tins, 16, 26 (size recommended), sufficient for 100 gallons, and 5-. Post free.

**VALROFF & CO.,**  
 Horsleydown, Tower Bridge Approach, LONDON.

**P. J. BYRNE,**  
 Horticultural Builder & General Contractor,  
 32 SHELBOURNE ROAD, DUBLIN.



Greenhouses and Conservatories built to order and erected in any part of Ireland at lowest prices.

Garden Frames and Lights very cheap.

ESTABLISHED 1830.

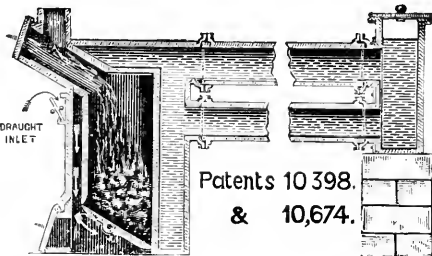
## The Boiler for Amateurs

**KINNELL'S SILVER "HORSE-SHOE." MEDAL**

Will burn from 10 to 20 hours. Over 20,000 in use.

Awarded 2 Gold Medals by Botanical Society.

**CHEAPEST BECAUSE. BEST . .**



Patents 10 398.  
 & 10,674.

Illustrated Catalogue, Plans, and Estimates free on receipt of particulars to—

**CHAS. P. KINNELL & Co., Ltd.**

65 & 65a Southwark St., LONDON, S.E.

**Vegetable, Flower, and Farm Seeds**  
 From the Finest Stocks and Strains in Cultivation.

*Catalogue Post Free.*

**Browne, Thompson & Co.,**

Seedsman, CORK.

Telegrams—"THOMPSON, SEEDSMAN, CORK."

## BEDDING PLANTS

**NOW READY.**

Properly transplanted and Hardy Stuff in Splendid Variety

Asters . . .	6d. per doz.
Stocks . . .	6d. "
Begonias . . .	2s. 6d. "
Calceolarias . . .	1s. 6d. "
Geranium . . .	2s. 6d. "
Lobelia . . .	2s. 6d. "

Nemesia, Pansies, Verbena, etc.

Collections of 150 Plants, 5s. 6d.

*Vegetable Plants from first-class stock Seeds.*

**The Ashbourne Coy.,**

Nurserymen,

15 Parliament Street & 51 Essex Street,

DUBLIN and DUNDRUM.

Telephone 98 x.

## GREEN'S MOWERS AND ROLLERS

Established nearly a Century.

BY SPECIAL WARRANT.

Appointed Makers



to His Majesty

King Edward VII.

**Are the Best in the World.**

Known and appreciated throughout the World.

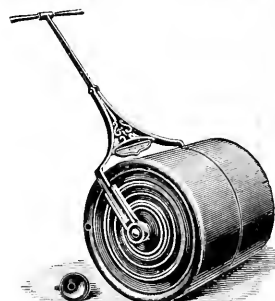
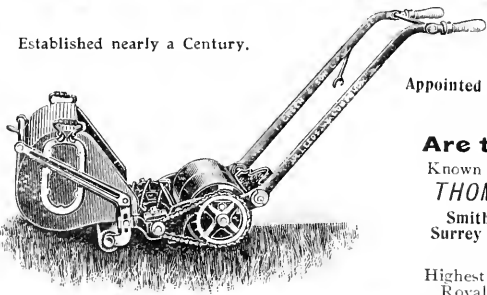
**THOMAS GREEN & SON, Ltd.,**

Smithfield Iron Works, Leeds, and New Surrey Works, Southwark St., London, S.E.

Please write for Price List.

Highest Awards, Royal Botanic Society, 1905-6; Royal Horticultural Society, 1905 and 1907.

**Sold by all Ironmongers.**



## Miscellaneous Section.

### Gardeners looking for the Best

and cheapest **Shading** to paint outside glass, to stick on all the Summer should ask for **Richards' "Sunshade,"** in dry powder to mix with water. Simple, cheap, and effectual. Gardeners anxious for the best **Fertilizer** should ask for **Richards' "XL ALL"** for Pot Plants, Fruit Trees, Kitchen Garden, and Lawn. Ask your Nurseryman or Seedsman for my small pink Price List of the world-renowned **"XL ALL"** Specialities, Fungicides, Compounds, Insecticides, Weed Killers, &c.

Supplies from Nurserymen, Seedsman, and Florists throughout the world. Be sure that you get the original patented inventions **"XL ALL."**

**G. H. RICHARDS,**

**234 Borough, LONDON, S.E.**

**J. NESS & CO.,** 12 Sandside, Scarboro', Garden and Lawn Tennis Boundary Net Makers; also Rabbit, Stag, Fishing, Cricket, and other Nets.

**TRIM AGRICULTURAL & HORTICULTURAL SOCIETY.** The Committee of the above Society have fixed date for holding Show for Tuesday, August 18th, 1908. **PATRICK HEALY,** Secretary.

**IF YOU HAVE A GLASS ROOF THAT LEAKS,** a Conservatory to repair, or any kind of glazing work to be done, **CARSON'S PLASTINE** will save money, time, worry and annoyance consequent on the use of ordinary putty which cracks, crumbles, and decays. It saves the expense of constant renewals. Carson's Wood Preservative in green and brown, for Palings, Trellis Work, &c. The best paint for Greenhouses is "Vitrolite." Write for Catalogue. **CARSON'S,** 22 Bachelor's Walk, Dublin.

**THE JOYS OF GARDENING** are realized by the using "The Ashbourne" Garden Fertilizer. The most concentrated and Complete Manure for Horticultural purposes. One and a half times as powerful as the largely advertised Garden Fertilizers in commerce—therefore more economical. Prepared on the most up-to-date methods. Of general uniform quality, highest solubility, with constituents correctly balanced for promoting a healthy, vigorous plant growth—per stone, 2s. 6d.; per cwt., 14s. 6d. **THE ASHBOURNE COMPANY,** Nurserymen, Parliament Street, Dublin.

**200 Highest Awards: Gold Medals from all the Principal Exhibitions.**

### PURE ICHTHEMIC GUANO.

**The Most Reliable, The Richest Food, and the Most Natural Fertiliser**

Supplied in Tins and Bags, **6d. to 20/.** Carriage paid on quantities of 28-lbs. and upwards.

**FAME'S FERTILISER.**  
**Swift, Safe, and Sure.**

Supplied in Tins and Bags, **6d. to 20/.** Carriage paid on quantities of 28-lbs. and upwards.

May be obtained from the principal Nurserymen, Seedsman, Florists and Chemists, or **DIRECT OF—**

**The Sole Proprietors and Manufacturers,**  
**WM. COLCHESTER & CO.,**  
**IPSWICH, England.**



## PENNICK'S Delgany Nurseries

**Flowering Shrubs**

**Fruit**



**Roses**



**Specialite . . .**

### HIMALAYAN RHODODENDRONS

**400 Feet Elevation.**

**PROTECT YOUR GARDENS.**—Netting, strong, small mesh, 100 yds. by 1 yd., 4s.; by 2 yds., 8s.; by 3 yds. wide, 12s.; any width or length can be supplied; orders over 5s. carriage paid.—**H. J. GASSON,** Net Works, Rye.

### THE SCOTCH FLAME FLOWER

*(Tropaeolum Speciosum.)*

I can supply **extra strong** pots of this popular climber at **5/-** and **7/6** per dozen, with directions for planting. **100** different named **Rockplants**, for any position my customer likes to name, for **28/6**, **50** for **14/6**; **25** for **7/9**; from pots or ground. Send for List.

**Wood's Plant Club Label** is the best permanent metal label.

**J. WOOD,** Boston Spa., S.O., YORKSHIRE.

**NOTICE.**—Don't stake your Carnations till you have seen **PORTER'S IMPROVED COIL STAKE.** No tying required; Stakes last a lifetime. The greatest boon ever offered to growers. Only wants seeing. 7s. 6d. per 100; sample dozen, 1s. Carriage paid. Cash with order.—**A. PORTER,** Stone House, Maidstone.

**LAWN MOWERS.**—All makes. Lowest rates. Repairs to Lawn Mowers. Latest and only up-to-date Automatic Machinery used, under supervision of Lawn Mower Specialists. Machines sent for and delivered. Estimates given, lowest rates.—**THE DAIRY ENGINEERING COMPANY OF IRELAND,** 21 and 22 Bachelor's Walk, Dublin. Telephone—912. Telegrams—"Experience," Dublin.

**SALT.** Gardens and Orchards are much improved by using Ground Rock Agricultural Salt. For particulars apply **FLOWER & McDONALD,** 14 D'Olier St., Dublin.

SECOND AND CHEAPER EDITION. JUST PUBLISHED  
Fcap. 8vo, Cloth, 438 Pages, 113 Illustrations. **4s. 6d.** net.

## The Horticultural Note Book

A MANUAL OF  
PRACTICAL RULES, DATA, AND TABLES

For the use of Students, Gardeners, Nurserymen, and others interested  
in Flower, Fruit, and Vegetable Culture, or in the Laying-out and  
Management of Gardens.

By J. C. NEWSHAM, F.R.H.S.,

Headmaster and Manager of the Hampshire County Council Agri-  
cultural and Horticultural School.

London: CROSBY LOCKWOOD & SON,

7 Stationers' Hall Court, E.C., and 121A Victoria Street, S.W.

## Encourage Home Industry!

We can supply you with Greenhouses,  
Poultryhouses, Dog Kennels and all Appliances  
25 per cent. less than the foreigner.

**McLOUGHLIN & CO.,**

Horticultural, Canine and Poultry Appliance  
Manufacturers,

15 Berkeley Street, DUBLIN.

## BEDDING PLANTS

NOW READY.

Properly transplanted and Hardy Stuff in Splendid  
Variety

Asters . . .	6d. per doz.
Stocks . . .	6d. „
Begonias . . .	2s. 6d. „
Calceolarias . . .	1s. 6d. „
Geraniums . . .	2s. 6d. „
Lobelia . . .	2s. 6d. „

Nemesia, Pansies, Verbena, etc.

Collections of 150 Plants, 5s. 6d.

*Vegetable Plants from first-class stock Seeds.*

**The Ashbourne Coy.,**

Nurserymen,

15 Parliament Street & 51 Essex Street,

DUBLIN and DUNDRUM.

Telephone 98 x

## BEDDING PLANTS

Special Offer of the following:—

**BEGONIAS.**—Our Giant Cold Medal strain of Single and  
Doubles, mixed or separate, from 2/- to 4/- doz.

**DAHLIAS CACTUS.**—Splendid varieties for exhibition,  
from 4/- doz.

**DAHLIAS.**—Other varieties and sorts, from 3/- doz.

**CERANIUMS.**—All the best sorts and colours to name,  
2/-, 2/6 and 3/- doz.

**PANSIES.**—Our Giant Exhibition varieties are unsur-  
passed, from 1/- to 2/- doz.

**CALCEOLARIAS and MARQUERITES.**—Beautiful stuff,  
from 1/- to 1/6 doz.

**PETUNIAS.**—Our prize strain, unequalled, 2/- doz.

**PELARGONIUMS.**—Bushy plants, from 4/- doz.

**VIOLAS.**—In separate colours or mixed, 1/- to 2/- doz.

**ASTERS, STOCKS, LOBELIAS, MARICOLDS, GOLDEN  
FEATHER, &c., &c., 4d. doz.**

**CULINARY PLANTS.**

Celery, Cauliflowers, Cabbage, Tomatoes, Cucumbers,  
Melons, Marrows, &c., &c.

Price List now ready. Free on application.

**ARTHUR S. RITCHIE & CO.,**

Seedsmen, Nurserymen, and Bulb Importers,

89 & 91 VICTORIA STREET,

Telephone 859.

**BELFAST.**

ISLINGTON NURSERIES,

Telephone 44.

BANGOR, CO. DOWN.

## TAIT'S GARDEN SEEDS

ARE THE BEST.

Carriage Paid.

Selected Vegetable Seeds.

Choicest Flower Seeds.

Imported Seed Potatoes.

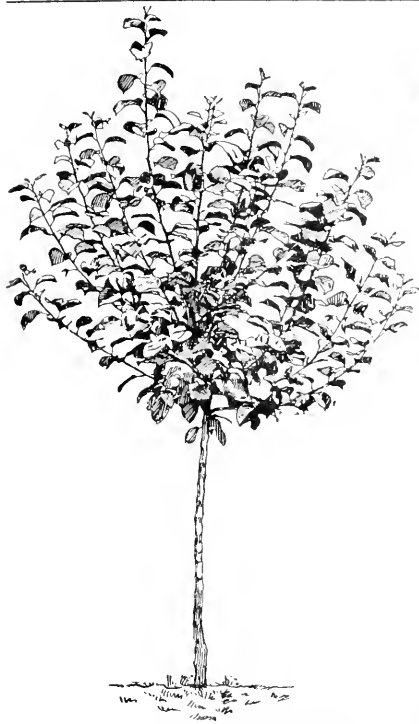
Every Requisite for the Garden.

Call or write for Tait's Annual List, post free.

**W. TAIT & CO.,**

Seed Merchants,

119 & 120 Capel St., DUBLIN



From a Photo of one of my 3-year-old trees growing in the Nursery. This is my type of  $\frac{1}{2}$ -Standard.

Telegrams: "JONES, GOWRAN."

## MY . . . CACTUS DAHLIAS

Which have won for me 17 Gold and Silver Medals all over Ireland, and have never been beaten at R.H.S.I. Shows, include the very finest varieties only, and are quite the best in Ireland.

Price from 3/6 Dozen upwards.

**EARLY AND LATE FLOWERING CHRYSANTHEMUMS** are also extra choice, and very select; I grow these by the thousand.

List Free.

**BEDDING PLANTS** in all usual varieties are done in very large quantities and splendid quality.

Lists now ready.

All Dahlias, Mums, and Bedding Plants free for Cash Orders value 3/6.

**JONES, F.R.H.S.,**

Forest Lodge Nurseries,  
**GOWRAN.**

Nurseries, 17 acres. Seed Dept.—68 High Street, KILKENNY.

## EDMONDSON'S PRIZE BEE HIVES

The C. D. B.  
The Two-Crate.  
The No. 1.

Bar Frames, Sections,  
Comb Foundation, and  
all Bee-keepers' Appliances.

Illustrated Price List Free.

**EDMONDSON BROS.,**  
10 Dame St., DUBLIN.





**FRUIT PRESERVING BOTTLES.**

The new Vacuum Bottles for the preservation of Fruit of all kinds, as recommended by the Department of Agriculture, we offer in the following sizes, also Fittings for same :—

26-oz. size, complete, with Metal Caps, Rubber Rings, and Clips	doz.	gross
40-oz. size, complete, with Metal Caps, Rubber Rings, and Clips	5/=	25/=
26-oz. size, Unfitted Bottles only	2/6	30/=
40-oz. " " "	3/=	10/=
Metal Caps and Rubber Rings	1/=	6d.
Rubber Rings	...	5/=
Clips, Patent Metal	1/4	15/=

**FRUIT PACKAGES.**

The new Woven Chip Baskets, uniform in size and shape, with an adjustable metal handle :—

	Per 2½ gross crate	Per gross	Per ½ gross
No. 4—Basket holding 4 lbs. Fruit	17/6	20/=	22/6
No. 10 " " " 10 " "	26/=	28/6	30/=

New Covers for same, made in strong cardboard, and wood; the latter are made from selected veneers, stitched together in such a way as to prevent splitting. Tied carefully over the top, they prevent theft, dust, and crushing in transit by rail, etc.

New Cardboard Covers, extra strong, for No. 4 size, 2/6 per 100; 4d. per doz.

New Cardboard Covers, extra strong, for No. 10 size, 2/9 per 100; 5d. per doz.

Patent Wood Covers for No. 4 size, 3/6 per 100; 6d. per doz.

Patent Wood Covers for No. 10 size, 3/9 per 100; 6d. per doz.

THOMAS MCKENZIE & SONS, Ltd., DUBLIN.

# ROWAN'S

## BEST OF ALL SWEDE. PURPLE TOP.

Grown from carefully selected, transplanted, and weighty roots, which may be fully relied upon for purity of stock and fine quality. This variety does not now need any description of its merits, as it has been fully tested on all kinds of soil, and in every part of Ireland, against the leading varieties, and with the most conclusive results; and in these times of agricultural depression it is necessary that every crop (more particularly the Turnip) should be a remunerative one. This you have in ROWAN'S BEST OF ALL SWEDE, combined with the best feeding properties. We have proved it by the overwhelming testimony of hundreds of customers, and where a crop can be increased by two to seven tons per acre, it must be an advantage to the grower to provide himself with the means of attaining such results.

1s. per lb.; post paid on 7 lbs.

**CLOVERS and GRASSES** for permanent pasture and meadow a speciality.

Catalogues, Samples, and Quotations on application to

**M. ROWAN & Co.,**  
Seed, Bulb, Plant Merchants,  
51 & 52 CAPEL ST.,

# DUBLIN.

TELEPHONE 672.

# SHANKS'S

WORLD-  
RENOWNED

# LAWN MOWERS

BRITISH MAKE THROUGHOUT.

**HIGH-WHEEL "TALISMAN."**  
CUTS AS CLEAN AS A RAZOR.



THE BEST FOR  
GOLF GREENS'

FITTED  
WITH  
BALL  
BEARINGS.

## AN EXPERT'S OPINION.

Herbert Park,  
Ballsbridge,

DUBLIN, 20th December, 1907.

SHANKS'S LAWN MOWERS bore the brunt of the preliminary heavy work here; and in spite of the strain imposed on them by large stretches of late laid greensward and inevitable sprinkling of debris in the way of nails, bits of wire, &c., remaining after hand picking, they came through the ordeal unscathed, doing perfect work to the finish of the season.

I was particularly pleased with the High-Wheel "Talisman" and "Britisher," and think these Machines are as near perfection as it is possible to have Lawn Mowers.

(Signed) EDWARD KNOWLDIN, F.R.H.S.

Ironmongers, Implement Agents, and Seedsman all sell them.

**ALEXR. SHANKS & SON, Ltd., Arbroath & London.** Established 70 YEARS.

## The PARAGON PEA TRAINER (PATENT).

SUITS any length of row. Easily put up or taken down. An ornament in the garden, keeping the growing Peas in neat straight lines. No trouble, always ready and will last for years with only a few pence outlay for any necessary renewal of training wire. Excellent for Sweet Pea.

What users say in 1907:—

"I am delighted with my Pea Trainers, they are just splendid."—BARRY.  
"The Trainer worked very well with me and kept the Peas neat and tidy."—DUBLIN.  
"Send me another Pea Trainer same as I had last year."—RECCARTON.

Prices in sets complete:—

12 ft. row 4 ft. high	7 6.	5 ft. high	9 6.
18 .. 4 ..	9 6.	5 ..	12 ..
24 .. 4 ..	11 6.	5 ..	14 6.
30 .. 4 ..	13 6.	5 ..	17 6.

Carriage paid to nearest station.  
Write for fuller particulars.

**PARAGON PEA  
TRAINER CO.,**  
Bridge St., Banbridge,  
Co. Down

## BECKER BROS.

PRICES—  
2/5, 2/2, 2/-, 1/10, 1/8, 1/6, 1/4, 1/2.  
**TEAS.**  
PRICES—  
2/5, 2/2, 2/-, 1/10, 1/8, 1/6, 1/4, 1/2.

8 Sth. Gt. George's St.  
AND 17 Nth. Earl St. **Dublin.**

## DAVID HENRY, Pembroke Nurseries, CARLOW.

Bedding Plant Specialist,

Offers immense quantities of the following.

All Orders 2s. 6d. or over free.

	Per Doz.	s.	d.		Per Doz.	s.	d.
<b>Ceraniums</b>				<b>Dianthus</b>	-	-	0 4
Bronz	-	2	6	Fuchsias	-	-	2 0
Crystal Palace Gem	-	2	6	<b>Caillardia Picta</b>	-	-	0 6
Flower of Spring	-	2	0	<b>Cypsochila</b>	-	-	0 6
F. V. Raspaill	-	2	0	<b>Heliotrope</b>	-	-	1 6
Jacoby	-	2	6	<b>Japanese Hop</b>	-	each	0 3
Mrs. Pollock	-	3	0	<b>Lobelia</b>			
King Edward VII.	-	3	0	Dwarf Blue, per 100	2 6	0	4
Lady Sheffield	-	2	6	White	3 6	0	6
Vesuvius	-	2	0	Double Blue	4	0	8
Ivy Leaf	-	-	-	<b>Marguerites</b>	-	-	1 6
<b>Begonias</b>				<b>Marigolds</b>	per 100	2 6	0 4
Separate Colours	-	3	0	<b>Musk</b>			
Mixed	-	2	6	Common	-	-	1 6
Double Separate	-	5	0	Giant	-	-	1 6
Double Mixed	-	4	0	<b>Nasturtiums</b>	Many sorts		
<b>Ageratum</b>	-	0	6	per 100	3 6	0	6
<b>Antirrhinum</b>				<b>Nicotiana</b>			
Mixed	-	0	6	Afinis	per 100	3 6	0 6
White	-	0	6	Sanderea	4/-	0	7
<b>Asters</b>				<b>Pansies</b>			
Chrysanthemum, per 100	2 6	0	4	Seedlings	per 100	3 6	0 6
Ostrich Plume, per 100	3 6	0	6	Choice Named	-	-	2 0
Victoria	-	2	6	<b>Perilla</b>	-	-	0 4
Comet	-	2	6	<b>Petunia</b>	-	-	0 8
<b>Beet Bells</b>	-	0	4	<b>Phlox</b>	per 100	2 6	0 4
<b>Calceolarias</b>	-	1	6	<b>Pyrethrum</b>	2 6	0	4
<b>Carnation</b> - Marguerite	-	1	0	<b>Stocks</b> - Ten-week, per 100	2 6	0	4
<b>Chrysanthemum</b>				Annual sorts	-	-	0 4
Annual sorts	-	0	4	<b>Cornflower</b> - Blue	-	0	4
<b>Dahlias</b> - One of the finest Collections of Cactus Varieties in existence	-	3	6	<b>Sunflowers</b>	-	-	0 5
				<b>Verbena</b>	-	-	0 6
				<b>Violas</b> - Choice Named	-	1	6

By Royal Warrant  
Horticultural Machinery



Manufacturers of  
to H.M. THE KING.

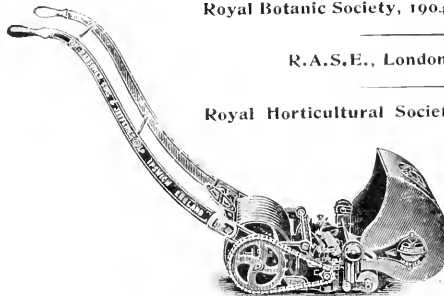
# RANSOMES' LAWN MOWERS.

## THE BEST IN THE WORLD.

Royal Botanic Society, 1904, 1905, and 1906—GOLD MEDALS.

R.A.S.E., London, 1904—SILVER MEDAL.

Royal Horticultural Society, 1906, 1907 SILVER MEDALS.



POSSESS  
IMPROVEMENTS  
CONTAINED  
IN NO  
OTHER MACHINES.

CHAIN OR WHEEL  
GEARING  
AS PREFERRED.

**Hand Power Machines**  
In all kinds and sizes.

**Horse & Pony Machines**  
For Large Lawns, Parks, &c.

**Motor Lawn Mowers**  
Nearly 200 supplied.

ILLUSTRATED CATALOGUES FREE.

# RANSOMES, SIMS & JEFFERIES, LTD., IPSWICH.

SOME LARGE PRIZES OPEN  
TO IRELAND  
For Vegetables, Fruit, Flowers,  
Honey, Eggs, Butter.

# ATHLONE SHOW, AUGUST 20th, 1908.

5,000 PRIZE SCHEDULES  
IN CIRCULATION.  
Apply—HAROLD SMITH,  
*Hon. Sec.,*  
Montree, Athlone.

## A Special Feature of this Show will be A Grand Display of Irish Horticultural Products

Organized with the assistance of the well-known Firms whose Joint Advertisement appears below. See also their Special Announcements in the Prize Schedule and Programme.

### The ASHBOURNE COMPANY, 15 Parliament Street, Dublin.

Seeds and Plants for Farm and Garden.

See our Special Exhibit at Show, from our own  
Nurseries, "the most elevated in Ireland."

### JONES, F.R.H.S., Forest Lodge Nurseries, **Gowran.** And 68 High Street, Kilkenny.

"Best Value" in Fruit Trees.

"Equal Value" in Forest Trees.

"Great Value" in everything

**600,000 FOREST TREES**  
were exported by

### WM. POWER & CO., Nurserymen, WATERFORD, During the past season to England, Scotland, and Wales.

### WM. TAIT & CO., 119 & 120 CAPEL STREET, DUBLIN,

Have presented a Special Prize for the  
Best Collection of Three Vegetables.

*See Schedule, page 41.*

### DAVID HENRY, Nurseryman and Seedsman, CARLOW, Headquarters for all kinds of Plants. BEDDING PLANT SPECIALIST. See Advertisement in this issue. See Exhibit at Show.

### ALEX. DICKSON & SONS, Ltd., Seedsman & Nurserymen, 61 Dawson Street, Dublin.

Also at Belfast, Newtownards, Blackrock, and Ledbury.

### SAMUEL McGREDY & SON, PORTADOWN, *The Specialists in Rose and Fruit Trees.* SEEDS AND BULBS ONLY THE BEST. Write for Illustrated Lists free.

By Appointment



Florists and Nurserymen  
to His Majesty  
the King in Ireland.

### Chas. Ramsay & Son, The Royal Nurseries, BALLSBRIDGE, DUBLIN, Have presented a Special Prize, and will put up an Exhibit at Athlone Show.

### WM. WATSON & SONS, Ltd., Nurserymen and Florists, CLONTARF, And 18F NASSAU STREET, DUBLIN.

*Business Established 1777.*

### SIR JAMES W. MACKEY, LTD., SEEDSMEN AND NURSERYMEN, 23 Upper Sackville Street, DUBLIN. See the Prize Schedule, page 42. Everything for Garden and Farm.

The Athlone Show also affords an unique opportunity for seeing the actual results of recent efforts to develop Rural Industries in the Midlands of Ireland. Convenient Trains at reduced fares from all parts.

*Please mention this "composite" advertisement when writing to advertisers.*

# FOR DESTROYING CATERPILLARS

On APPLES

PEARS

GOOSEBERRIES

CURRANTS

ROSES and all other Trees

SPRAY

WITH

## SWIFT'S ARSENATE OF LEAD

IT will supersede all other similar Insecticides, and is at present being used on the best Fruit Farms throughout England and the United States. **Experiments made in Ireland** last year with Swift's Arsenate of Lead **demonstrated its superiority** over Paris Green, London Purple, &c. See Department's Leaflet No. 85, and write for descriptive booklet with testimonials, &c.

*It kills all leaf-eating insects.*

*Suitable for all trees. It sticks on the leaves.*

*Rain will not wash it off.*

*No danger of burning or scorching the leaves.*

*Tends to produce better and larger fruit.*

*Used by many Irish fruit growers last year.*

### PRICES—

1lb. Tins	...	at 1s. per lb.	20lb. Wooden Pails	...	at 9½d. per lb.
5lb. Wooden Pails	...	" 10d. "	50lb. " Kegs	...	" 9d. "
10lb. " "	...	" 9½d. "	100lb. " "	...	" 8½d. "

MANUFACTURED BY MERRIMAC CHEMICAL COY., BOSTON.

Sole Irish Agent—

**D. M. WATSON**, Chemist, 61 Sth. Gt. George's Street, Dublin.

## SMITH'S 'PERFECT' WEED KILLER (Powder and Liquid).

### LIQUID.—Prices:

	s.	d.	£	s.	d.
1 gal	2	0	8 gals	0	12 6
2 "	3	9	10 "	0	14 0
3 "	5	6	12 "	0	17 0
4 "	7	0	16 "	1	2 6
5 "	8	0	18 "	1	5 0
6 "	9	6	20 "	1	8 0
40 gallons,	£2 10 0.				

One Gallon makes 25 Gallons for use. Packages extra, but allowed for on return.  
Carriage paid on 8 Gallons.

### An Irish Testimonial.

Glendaragh,  
Newtown-Mount-Kennedy,  
Co. Wicklow.

I obtained several tins of Smith's Patent Weed Killer Powder, and used the preparation last year on walks and avenue here. Where the Powder was used all weeds were destroyed, and the walks kept perfectly free from weedy growths for the season.

B. ST. G. DEANE,

Commander R.N. (retired), J.P. for Co. Wicklow.

### POWDER.

A Scientific Triumph!

Nothing like it ever seen before!

Immediately Soluble in cold water!

All Tins Free. No Return Empties.

	£	s.	d.
1 Tin, sufficient to make, 25 gals.	0	2	0
4 " " " 100 "	0	7	0
8 " " " 200 "	0	12	6
12 " " " 300 "	0	17	0
20 " " " 500 "	1	8	0
40 " " " 1,000 "	2	10	0

Carriage Paid on 8 Tins.

\* Box 6d. extra. † Box 1s. extra.

Irish Agent—

**D. M. WATSON**, HORTICULTURAL CHEMIST,  
61 South Great George's St., DUBLIN.

'Phone, 1971. Write for Booklet of Testimonials, &c.

## Correspondence.

DEAR SIR,—While we are all contemplating the report of the Forestry Commission, and hoping that it will be acted on, might I suggest through your columns a small scheme which, if adopted, might enhance the beauty of our main roads, and possibly produce at a future date some valuable timber. While we are waiting for some one to do a great deal of good for us, might we not do a little for ourselves. Anyone who has traversed our county and most of the adjoining counties will, I think, agree that the bye-ways are, as a rule, more picturesque than the main roads, and, as a rule, are better wooded. Some of these main roads are blank from end to end, like the Ashbourne Road, others are in places bleak like the Naas Road, while all of them, even the Bray Road, have some unsheltered spaces. Few of these old coach roads are now steam-rolled out to the margins, and they have spaces of varying depth along their sides, where the road sweepings and mud are now thrown. I suggest that these spaces should be planted. How? By whom?

Let me further suggest a mode, the practicability of which I invite your readers to discuss—namely, to form a committee of the principal residents, some members of the County Council, and, say, the County Surveyor and the Assistant County Surveyor; which committee should meet and get the scheme in shape during the summer, and, if necessary, form sub-committees for the separate roads and districts, so that the matter would be in working order by the planting season. If a small beginning were made this year more might be done next year, and in time all the road margins might be planted; the timber vested in the County Council, and, possibly, that far-seeing body might see that the acquisition of this asset which, at some future date, would be, no doubt, very valuable, would repay the expense of labour, for looking after, pruning, &c.

As to finance, I hardly think this would arise, as I am sure the residents would, in most cases, supply the young trees and labour to plant them; and expert advice could be obtained by asking the co-operation of the "Department" with the committee.

This scheme may be impracticable, though it seems to me that, with co-operation and good-will, it might be carried out. Why would residents not try to improve their own neighbourhood and their own property. The County Council is far too practical a body to raise any objection. The effort to start such a scheme ought to be small, and, if it should prove successful, I can conceive the envy with which our metropolitan county would be viewed. Anyone that has faced a south-west gale on a winter's night on the Ashbourne Road would not only

## Summer Bedding.

ON account of the quantity of worthless seedlings now advertised, which are merely taken from seed boxes and sold at prices for which it is not possible to grow good stuff, care should be taken when buying to procure sturdy plants which have been transplanted from the seed beds or grown singly in pots. In Geraniums, for example, it is useless to buy rooted cuttings from boxes, as they will take the most of the summer to become plants.

It is claimed by Messrs. WATSON & SONS, Ltd., Clontarf Nurseries, Dublin, that all their Geraniums, Begonias, and many other such plants are established in small pots, and packed for despatch with balls of soil intact; whilst seedlings, such as Asters and other annuals, are transplanted, nursed in cold frames, and finally hardened off. By devoting personal attention to their clients' orders and instructions Messrs. WATSON strive to ensure complete satisfaction. Packing is a feature, as they do not believe in growing good stuff and spoiling it by lack of care when being despatched. Of course the Railway Companies are often responsible for damage to perishable plants no matter how well packed, and, before taking delivery, purchasers should assure themselves that the packages have not been damaged or pilfered. If injured in any way the Railway Company will not be accountable for loss unless the injury is specified when signing for the goods or the delivery sheet marked "Not Examined."

MESSRS. WATSON & SONS have published a neat booklet about Summer Bedding Plants which they will post without charge to any applicant.

WHEN IN BELFAST, LUNCH OR DINE AT

YE OLDE CASTLE,

CASTLE PLACE.

—The Finest Restaurant in Ireland.—

Telephone 1250. Wires: "Diet, Belfast."

# CROSS'S "GARDEN FERTILISER,"

## GARDEN SEEDS,

## AND INSECTICIDES.

Alex. CROSS & SONS, Ltd.,  
Horticultural Specialists,  
GLASGOW.

(Almost 100 YEARS Established.)

On Sale by ALL SEEDSMEN.

co-operate but, I feel certain, he would take off his coat and plant the trees himself in preference to having the experience repeated.

I therefore appeal to the residents of the metropolitan county, be they gentle or simple, rich or poor, motorists, cyclists, pedestrians, drivers of coaches or of donkeys—let them, Mr. Editor, express their views through your valuable columns, and let us hear their opinions for, against, or in modification of this scheme. VINTOR.

Monkstown, Co. Dublin, 13th May, 1908.

#### "CURRENT TOPICS."

SIR,—Some sarcastic remarks appeared on page 66 of last month's issue of IRISH GARDENING, under the above heading, in reference to some hints of mine on page 62 of previous month, which I think need some little comment. In the first place, the writer took a wrong impression as to the quantity of the *artificial fertiliser* I meant to be used. He appears to have noticed, at least, that I mentioned *holes* should be made and that "half of the quantity of fertiliser recommended was to be mixed with the compost, &c." Now, what I meant to convey was, that the so-called *salty compost* to be used would be mixed in the proportion of one-half of that quoted to each square yard of compost; or, if I try to make it

clear, the compost heap ought to be one square yard on surface, having a depth of  $1\frac{1}{2}$  feet; this would give the cubical contents of the heap to be 3 ft. by 3 ft. by  $1\frac{1}{2}$  ft. Now, the number of holes, each 4 ins. in diameter, required to occupy a square yard would be about 104—that would mean about 1 lb. of the mixed fertiliser to every 15 holes. If we calculate the quantity of the *salty compost* that would be required per statute acre at the above rate, the holes being 15 ins. by 12 ins., it would only require about 1 ton 6 stones; that would be less than one-fourteenth of the amount mentioned in last month's issue.

In the second place, when a person grows carrots for exhibition he is not likely to grow a statute acre of them, only a few holes will be quite sufficient; besides, not likely does he *sample* them as to the food material they contain, owing to the fact that they are most likely well-handled and examined on the exhibition table, so that he is not at all interested as to their *salty* flavour. He only looks to straightness, smoothness, good colour, and uniformity of size.

In growing carrots after any heavily-manured crop in old gardens we are told to "fumigate the soil." There are two lately invented fumigators mentioned, but I am rather inclined to believe that the "past master knight of the spade"—so sarcastically made use of—never used

SAFE

# Gardo

SURE

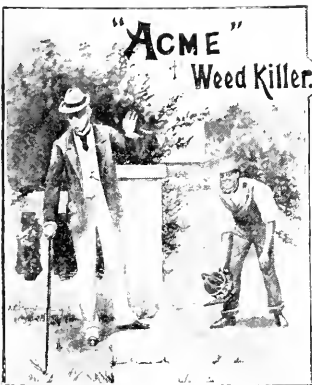
## AN INVALUABLE INSECTICIDE FOR GREENHOUSE and GARDEN.

Gardo is effectual for all kinds of Aphis and other insect pests. It is non-poisonous, soluble in water, and, if used according to instructions, does not discolour or leave any visible film on the foliage or flowers.

Gardo is used by some of the best amateurs and largest members of the trade at home and abroad. Sold in Tins: 1/6, 1/6, 2/6 and 4/6 each. Drums: 1 gall. 7/6; 2 gall. 13/6; 5 gall. 30/6 each, by Seedsmen, or sent direct from Ipswich on receipt of P.O.

Send a post card for full particulars and directions for use to

**THE CHEMICAL UNION, LIMITED, IPSWICH.**  
MANUFACTURERS OF CANARY GUANO.



"Weeds, weeds everywhere! I wonder if that new gardener can suggest anything?"  
"Yes, sir. I'm just using the 'Acme' Weed Killer. The best in the world for killing weeds."

### CLEAN PATHS. CLEAN PLANTS.

Used in the Crystal Palace Grounds, the Royal Horticultural Society's Gardens, Kew, and in the principal Gardens of the United Kingdom.

**STRENGTH, 1 in 25. 1 Gall. to 25 Galls. of Water.**  
1 Gall. 2s. 3d., tin free; 5 gall. 7s. 6d., drum, 2s. 6d.; 10 gall. 13s. 4d., drum, 5s.; 40 gall. 50s., cask, 5s. Carriage paid on 5 gallons and upwards.

**DOUBLE STRENGTH. 1 Gall. to 50 Galls. of Water.**  
1/2 gall. 2s., tin free; 1 gall. 3s. 6d., drum, 6d.; 5 gall. 14s., drum, 2s. 6d.; 10 gall. 25s. 6d., drum, 5s. 40 gall. 90s., cask, 5s. Carriage paid on 2 gallons and upwards. Empties allowed for when returned

### "ACME" POWDER WEED KILLER.

Sizes	Tins free	Per tin
No. 1 ..	To make 25 gallons	1s. 6d.
No. 2 ..	" 50 "	3s. 3d.
No. 3 ..	" 100 "	6s. 6d.

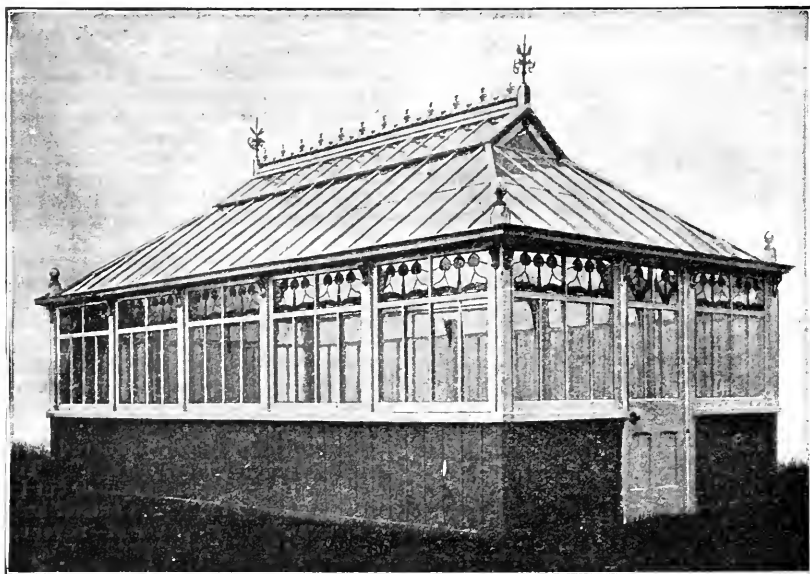
Soluble in cold water. No. 3 carriage paid. Prices for larger quantities on application.

### COMPOUND QUASSIA EXTRACT INSECTICIDE.

Safest and best for all purposes. Certain death to Aphis, Red Spider, &c., &c. Sample pint sufficient for 10 galls., 1s. Post paid. Try it.

ACME CHEMICAL CO., Ltd.,  
TONBRIDGE, KENT & RIVER ST., BOLTON, LANCs.

Agents: HAYES, CONYNGHAM & ROBINSON, LTD., Chemists, 12 Grafton Street, DUBLIN.



**JAMES  
CRISPIN  
& SONS, F.R.H.S.**  
 . Supply all classes of .  
**HORTICULTURAL**  
 . BUILDINGS,  
 HEATING,  
 VENTILATING,  
 . and .  
**DOMESTIC SUPPLY  
APPARATUS.**

Please write for Catalogue Illustrating this and other Ornamental Conservatories.

Head Office : Nelson Street, BRISTOL.

**BAYLISS.  
JONES & BAYLISS LTD.**  
 FOR ALL KINDS OF  
**IRON FENCING**  
 VICTORIA WORKS  
**WOLVERHAMPTON**  
 LONDON OFFICES & SHOWROOMS  
 129 & 141 CANNON ST.  
 E. C.

DOG KENNEL & POULTRY RAILING  
 CORRUGATED SHEETS  
 TREE GUARDS  
 WIRE NETTING  
 ETC.

GARDEN ARCHES  
 FRUIT ESPALIER  
 LIGHT MURULES  
 ETC.

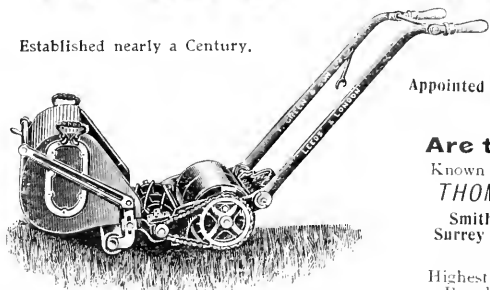
**FURNITURE**  
 CARPETS  
 CURTAINS  
 LINOLEUMS  
 BEDSTEADS, &c.  
 AT  
 Lowest CASH Prices  
 OR BY  
 Gradual Payments.  
 TERMS and PRICE  
 LISTS FREE.

**J. H. WEBB & CO., LTD.,**  
 CORNMARKEt, DUBLIN.

## GREEN'S MOWERS AND ROLLERS

Established nearly a Century.

BY SPECIAL WARRANT.



Appointed Makers



to His Majesty

King Edward VII.

**Are the Best in the World.**

Known and appreciated throughout the World.

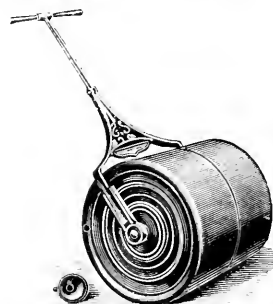
**THOMAS GREEN & SON, Ltd.,**

Smithfield Iron Works, Leeds, and New  
 Surrey Works, Southwark St., London, S.E.

Please write for rice List.

Highest Awards, Royal Botanic Society, 1905-6;  
 Royal Horticultural Society, 1905 and 1907.

**Sold by all Ironmongers.**





such ingredients, not even KILGOUR, and, perhaps, he could produce better exhibition-grown carrots than most of us who now use "Vaporite," &c.

I think, sir, you will fully agree with me when I say that pleasant criticism is conducive of much good, and helps us all to gain more knowledge, but when *irony* takes the place of fair criticism, then unfruitfulness and salty retorts will land us into oblivion.

WILLIAM JOHNSTON.

Longford, 16th May, 1908.

#### FRENCH CRAB APPLE.

DEAR SIR,—With reference to the letter from Mr. Bedford in your last issue relating to French Crab Apple, in which he states that French Crab is quite distinct from Northern Greening, allow us to point out that Dr. Hogg (the greatest authority upon apples) connects the two sorts by bracketing French Crab with John Apple and John Apple with Northern Greening and Winter Greening.

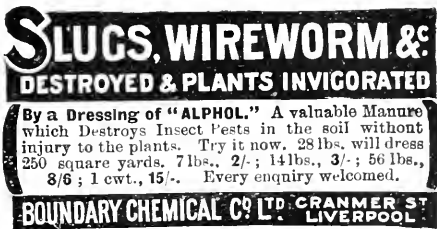
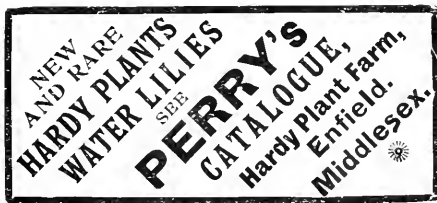
The majority of these old apples have numerous synonyms, but the French Crab that your correspondent describes is identical with the French Crab catalogued by us, and we have repeatedly had fruits hanging on the trees till February, and have kept them for nine months.

Thanking you in anticipation for the insertion of this reply in your valuable little paper.

Chelmsford.

W. SEABROOK & SONS.

**LAWN MOWERS** sharpened and repaired by Automatic Machine. Lowest prices. **GARDEN SHEARS** and **EDGE TOOLS** ground. **STRAWBERRY PUNNETS.** **FRUIT BASKETS.** **BRODERICK & SON,** 11 and 12 CAPEL STREET, DUBLIN.



**Vegetable, Flower, and Farm Seeds**  
From the Finest Stocks and Strains in Cultivation.  
*Catalogue Post Free.*  
**Browne, Thompson & Co.,**  
Seedsmen, CORK.  
Telegrams—"THOMPSON, SEEDSMAN, CORK."

## IMPORTANT TO GARDENERS and Fruit Growers.



# "Niquas"

(Registered).

The most successful Non-poisonous Insecticide of the day.

ITS ADVANTAGES ARE—

Certain death to all Insect Pests.  
No possible injury to the most delicate Plant, Flower or Foliage.  
It is by far the cheapest Insecticide known. One pint makes ten to twelve gallons for Thrip, Black and Green Fly, etc., whilst RED SPIDER, Mealy Bug, and Scale can be thoroughly eradicated by using "NIQUAS," double or three times the strength required for Fly.

**PRICES**—Pint, 1/-; Quart, 1/9; Half-Gallon, 3/-; Gallon, 5/-; Kegs, each Five Gallons, 22/6; Ten Gallons, 42/6.

Ask for Testimonials, of which some hundreds have been received.

#### SPECIMEN TESTIMONIAL.

From Mr. E. HUBBARD, Gardener to G. Hanbury, Esq., Blythwood, Burcham, Bucks, May 15th, 1906.

"I have been using your "NIQUAS" Insecticide for some years, and can with all confidence say it is the best I have ever used for Bug, Thrip, Red Spider, American Blight, and for all Insect Pests it has no equal. Also for the destruction of Maggots in Marguerites by dipping.

"I have recommended it to my friends generally."

## LETHORION

IMPROVED METAL

## VAPOUR CONE

FOR FUMIGATING.

At Greatly Reduced Prices.

INTRODUCED 1885.



(Registered Trade Mark.)

This well-known invention for the entire eradication of all pests infesting vegetation under glass is now manufactured in a more simple and reliable form. The small candle, which will be found packed with each cone, has only to be lighted, and placed on the ground in the centre of the Cone Frame, to produce immediate results. Nothing on the market can equal it for efficacy and cheapness.

Cone No. 3, for a well-secured house of cubic 2,000 to 2,500 feet, 1/- each. Cone No. 2, for a well-secured house of cubic 1,000 to 1,200 feet, 8d. each. Cone No. 1, Carbon, for frames of cubic 100 feet, 6d. each. Full directions accompany each Cone.

Ask for a List of Testimonials, of which some hundreds have been received from the leading gardeners in the Kingdom.

To be had from all Seedsmen and Florists.

MANUFACTURED BY

**CORRY & CO., LTD.,**

At their Bonded Chemical Works,

**SHAD THAMES, S.E.**

Office & Show Rooms:—13 & 15 Finsbury St., London, E.C.

Registered **"SHEFA"** Trade Mark

**CASH WITH ORDER.**

**ODOURLESS! CLEAN! SOLUBLE!**  
 An improvement on all other fertilizers for Garden and Greenhouse. Exceptionally High Analysis. Economical. Will appeal to Ladies. Brings Flowers, Fruit, and Vegetables to perfection. Commence using now. Tins, **1 6, 2 6** (size recommended), sufficient for 100 gallons, and **5 -**. Post free.

**VALROFF & CO.,**  
 Horsleydown, Tower Bridge Approach, LONDON.

Established 1896. Telephone 107 Y.  
 Window Cleaners, etc., to Shops, Offices, Warehouses,  
 Private Residences, etc., Dublin and County.

**'DISHER'S,'** House, Shop, and Office Cleaners—  
 Linewashers, Whiteners, and  
 Glazing Contractors.

**6 Fleet Street, DUBLIN.**

DISHER'S Cleaning and Disinfecting Composition will clean and disinfect your House, Shop, and Office throughout (without soap). **3s. 6d.**  
 Gallon Can delivered.

## "NICOTICIDE" Fumigant.

Half-gallon Tin, containing sufficient for 100,000 cubic feet	60/-	Cart. paid.
No. 1 size Tin—1 pint	40,000	
No. 2 size Tin—1 pint	20,000	
No. 3 size Bottle—6 oz.	12,000	
No. 4 size Bottle—4 oz.	8,000	
No. 5 size Bottle—1 oz. (sample)	2,000	10d.

### FUMIGATORS,

1/- each, for 5,000 cubic feet.

### NICOTICIDE PLANT WASH For Outdoors.

1/2 Pint, 1 2; Pint, 2/-;  
 Quart, 3 6; 1/2 Gallon, 5 -  
 Gallon, 10 -

**GOW'S WINTER ALKALI TREE WASH** for destroying Woolly Aphis, Scales, Lichen Moss and Apple Suckers, &c. Half-gallon 2 6; Gallon, 5 - carriage paid. One gallon will make 20 gallons solution.

**HUNTER & COW, 46 Thomas Street, LIVERPOOL.**

**WEEDS DESTROYED ON GRASS INVIGORATED**  
**LAWNS, ON GOLF, TENNIS COURTS, BY BOWLING GREENS &c**  
**"CLIMAX" LAWN SAND**  
**THE BEST DRESSING FOR WEEDY OR IMPOVERISHED LAWNS.**  
**Write for our Catalogue of Garden Helps.**  
**BOUNDARY CHEMICAL CO. LTD. CRANMER ST LIVERPOOL**

**TRY IT NOW.**  
 Sample tins, 1s., 2s., and 5s. 6d., or 2s. 1b., to dress 100 square yards, 6s., carriage paid.

## P. J. BYRNE,

Horticultural Builder & General Contractor,  
 32 SHELBOURNE ROAD, DUBLIN.



Greenhouses and Conservatories built to order and erected in any part of Ireland at lowest prices.

Garden Frames and Lights very cheap.

ESTABLISHED 1830.

All Original Illustration Blocks in  
 "Irish Gardening" are executed by

THE . . .

## Irish Photo-Engraving Co.



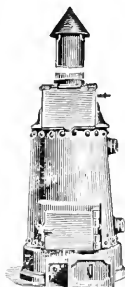
Samples and Prices  
 for every kind of  
 Illustrative Work  
 upon application.

Oriel House, Westland Row, DUBLIN.

## Improved BEATRICE GREENHOUSE BOILERS.

Complete Apparatus from 75s.

A modern success. Great improvement over old-type boilers. The "Beatrice" makes greenhouse work a pleasure. One stoking for the day, one stoking for the night. Even draught, even temperature. Guaranteed double the sale of any other boiler. To intending purchasers



List Post Free.  
 Easy Payments Arranged.

**JAS. CHEW & CO.,**  
 Brookhouse Iron Works,  
 BLACKBURN, LANCs.

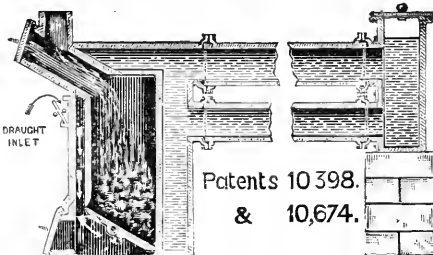
## The Boiler for Amateurs

## KINNELL'S SILVER MEDAL "HORSE-SHOE."

Will burn  
 from 10 to  
 20 hours.  
 Over 20,00  
 in use.

Awarded  
 2 Gold Medals  
 by Botanical  
 Society.

**CHEAPEST  
 BECAUSE  
 BEST . .**



Illustrated Catalogue, Plans, and Estimates free on receipt of particulars to—

**CHAS. P. KINNELL & Co., Ltd.**  
 65 & 65a Southwark St., LONDON, S.E.

SOME LARGE PRIZES OPEN  
TO IRELAND  
For Vegetables, Fruit, Flowers,  
Honey, Eggs, Butter.

# **ATHLONE SHOW,** **AUGUST 20th, 1908.**

5,000 PRIZE SCHEDULES  
IN CIRCULATION.  
Apply—HAROLD SMITH,  
*Hon. Sec.,*  
Montree, Athlone.

## A Special Feature of this Show will be A Grand Display of Irish Horticultural Products

Organized with the assistance of the well-known Firms whose Joint Advertisement appears below. See also their Special Announcements in the Prize Schedule and Programme.

### **The ASHBOURNE COMPANY,** **15 Parliament Street, Dublin.**

Seeds and Plants for Farm and Garden.

See our Special Exhibit at Show, from our own Nurseries, "the most elevated in Ireland."

### **JONES, F.R.H.S.,** Forest Lodge Nurseries, **Gowran.** **And 68 High Street, Kilkenny.**

"Best Value" in Fruit Trees.

"Equal Value" in Forest Trees.

"Great Value" in everything

### **600,000 FOREST TREES**

were exported by

### **WM. POWER & CO.,** Nurserymen, **WATERFORD,**

During the past season to England, Scotland,  
and Wales.

### **WM. TAIT & CO.,** 119 & 120 CAPEL STREET, **DUBLIN,**

Have presented a Special Prize for the  
Best Collection of Three Vegetables.

*See Schedule, page 41.*

### **DAVID HENRY,** **Nurseryman and Seedsman, CARLOW,** Headquarters for all kinds of Plants. **BEDDING PLANT SPECIALIST.**

See Advertisement in this issue. See Exhibit at Show.

### **ALEX. DICKSON & SONS, Ltd.,** **Seedsman & Nurserymen,** **61 Dawson Street, Dublin.**

Also at Belfast, Newtownards, Blackrock, and Ledbury.

### **SAMUEL McGREDY & SON,** **PORTADOWN,**

*The Specialists in Rose and Fruit Trees.*

**SEEDS AND BULBS ONLY THE BEST.**

Write for Illustrated Lists free.

By Appointment



Florists and Nurserymen  
to His Majesty  
the King in Ireland.

### **Chas. Ramsay & Son,** **The Royal Nurseries,** **BALLSBRIDGE, DUBLIN,**

Have presented a Special Prize,  
and will put up an Exhibit at  
Athlone Show.

### **WM. WATSON & SONS, Ltd.,**

**Nurserymen and** **CLONTARF,**  
**Florists,**

And 18F NASSAU STREET, DUBLIN.

*Business Established 1777.*

### **SIR JAMES W. MACKEY, LTD.,** **SEEDSMEN AND NURSERYMEN,** **23 Upper Sackville Street, DUBLIN.**

See the Prize Schedule, page 42.  
Everything for Garden and Farm.

The Athlone Show also affords an unique opportunity for seeing the actual results of recent efforts to develop Rural Industries in the Midlands of Ireland. Convenient Trains at reduced fares from all parts.

*Please mention this "composite" advertisement when writing to advertisers.*

. . FOR . .

**GARDEN**

AND

**PLEASURE****GROUND**

ESTIMATES FREE.

**CHEAP SECTIONAL  
GREENHOUSES****GARDEN FRAMES****IRON FENCING****ORNAMENTAL  
HURDLES****ESPALIERS****FRUIT WALL WIRING****TRAINERS****BORDER RAILS****PERGOLAS**

**KENNAN & SONS, Ltd.,**  
Fishamble  
St., **DUBLIN.**

**HEALTHY NURSERY STOCK**

Our Nurseries, near Dundrum, are situated  
**600 feet above sea level**

at the base of the Dublin Mountains.

Enjoying the purest air, and growing in  
ideal nursery land, our

**Plants and Trees are in  
the healthiest condition**  
and thoroughly sturdy.

Horticulturists will readily recognise the utility of  
planting such stock for obtaining the best results.

*General Nursery List on application.*

**The Ashbourne Coy.,**  
Nurserymen,  
15 Parliament Street & 51 Essex Street,  
**DUBLIN.**

**TAIT'S  
GARDEN SEEDS  
ARE THE BEST.**

Carriage Paid.

Selected Vegetable Seeds.

Choicest Flower Seeds.

Imported Seed Potatoes.

Every Requisite for the Garden.

Call or write for Tait's Annual List, post free.

**W. TAIT & CO.,**  
Seed Merchants,  
119 & 120 Capel St., **DUBLIN**

**BEDDING PLANTS**

Special Offer of the following:—

**BECONIAS.**—Our Giant Gold Medal strain of Single and  
Doubles, mixed or separate, from 2/6 to 5/- doz.

**DAHLIAS CACTUS.**—Splendid varieties for exhibition,  
from 5/- doz.

**DAHLIAS.**—Other varieties and sorts, from 3/- doz.

**CERANIUMS.**—All the best sorts and colours to name,  
from 2/- to 4/- doz.

**PANSIES.**—Our Giant Exhibition varieties are unsur-  
passed, from 1/- to 2/- doz.

**CALCEOLARIAS and MARQUERITES.**—Beautiful stuff,  
from 1/6 to 2/- doz.

**PETUNIAS.**—Our prize strain, unequalled, 2/- doz.

**PELARGONIUMS.**—Bushy plants, from 4/- doz.

**VIOLAS.**—In separate colours or mixed, 1/- to 2/- doz.

**ASTERS, STOCKS, LOBELIAS, MARICOLDS, GOLDEN  
FEATHER &c., &c., 4d. and 6d. doz.**

**CULINARY PLANTS.**

Celery, Cauliflowers, Cabbage, Tomatoes, Cucumbers,  
Melons, Marrows, &c., &c.

Price List now ready. Free on application.

**ARTHUR S. RITCHIE & CO.,**  
Seedsmen, Nurserymen, and Bulb Importers,  
89 & 91 VICTORIA STREET,  
Telephone 850. **BELFAST.**

ISLINGTON NURSERIES,

Telephone 44.

BANGOR, CO. DOWN.

# ROWAN'S

## BEST OF ALL SWEDE. PURPLE TOP.

Grown from carefully selected, transplanted, and weighty roots, which may be fully relied upon for purity of stock and fine quality. This variety does not now need any description of its merits, as it has been fully tested on all kinds of soil, and in every part of Ireland, against the leading varieties, and with the most conclusive results; and in these times of agricultural depression it is necessary that every crop (more particularly the Turnip) should be a remunerative one. This you have in ROWAN'S BEST OF ALL SWEDE, combined with the best feeding properties. We have proved it by the overwhelming testimony of hundreds of customers, and where a crop can be increased by two to seven tons per acre, it must be an advantage to the grower to provide himself with the means of attaining such results.

1s. per lb.; post paid on 7 lbs.

**CLOVERS and GRASSES** for permanent pasture and meadow a speciality.

Catalogues, Samples, and Quotations on application to

**M. ROWAN & Co.,**  
Seed, Bulb, Plant Merchants,  
51 & 52 CAPEL ST.,

# DUBLIN.

TELEPHONE 672.

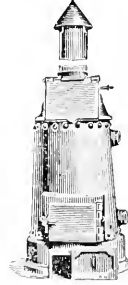
## Improved BEATRICE GREENHOUSE BOILERS.

Complete Apparatus from 75s.

A modern success. Great improvement over old-type boilers. The "Beatrice" makes greenhouse work a pleasure. One stoking for the day, one stoking for the night. Even draught, even temperature. Guaranteed double the sale of any other boiler. To intending purchasers

List Post Free.

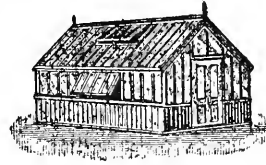
Easy Payments Arranged.



**JAS. CHEW & CO.,**

Brookhouse Iron Works,  
BLACKBURN, LANCs.

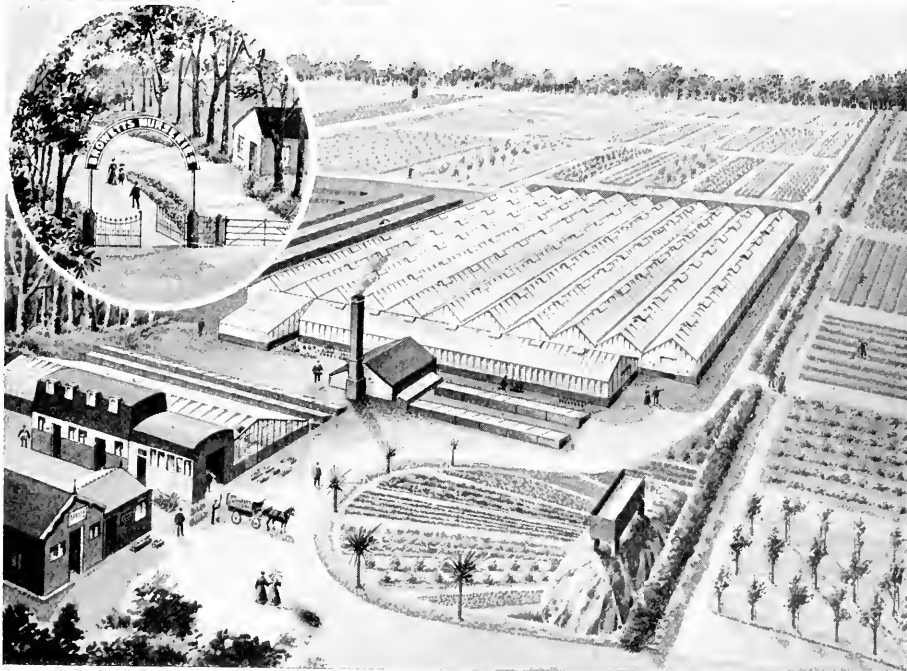
## SMART'S GREENHOUSES



from £2 10s., with 21 ounce glass complete. Good work only. Heating Apparatus, Garden Frames, from 15s. Houses, Arches, Seats, Kennels, &c., 21 ounce glass, 10 by 8 in., 10s.; 12 by 8 in., 11s. 6d. per 100 sq. ft. Other sizes stocked. Putty, best quality, per cwt., 7s.;  $\frac{1}{2}$  cwt., 3s. 6d.;  $\frac{1}{4}$  cwt., 2s. 2d. Roofing Felt per roll, 3s. 6d. Paint, any colour, per 7 lb. Tin, 2s.; 14 lb. Tin, 3s. 6d.

Write for Catalogue.

**A. SMART, Empire Works,**  
817 Gallowgate Street, GLASGOW.



## Bedding

AND . . .

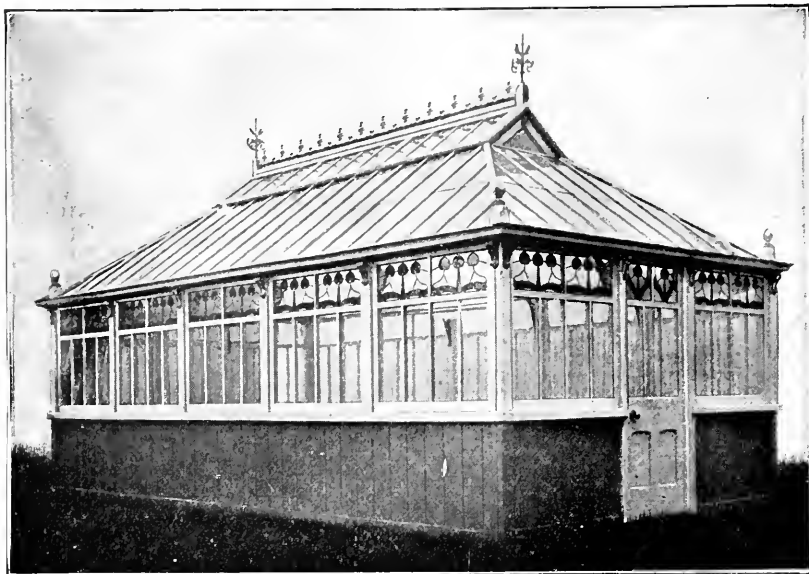
## Greenhouse Plants

Largest Stock  
in Ireland.



## Fern and Palm Growers.

**E. BROWETT & SONS, KINGSTOWN,** AND CORPORATION  
MARKETS, DUBLIN.



## JAMES CRISPIN & SONS, F.R.H.S.

. Supply all classes of .  
HORTICULTURAL  
. BUILDINGS,  
HEATING,  
VENTILATING,  
. and .  
DOMESTIC SUPPLY  
APPARATUS.

Please write for Catalogue Illustrating this and other Ornamental Conservatories.

Head Office : Nelson Street, BRISTOL.

## CHRYSANTHEMUMS.

Special Planting Offer of  
Fine Strong Plants. ❀

- 12 Beautiful varieties for the open border, the true hardy type, 2/6; 25, 4/6; 50, 8/6; 100, 16/=
- 13 Early-flowering Pompons, 2/6; 25, 4/6.

The above varieties will flower from July to October.

- 25 Grand plants for the cool greenhouse or conservatory, to flower from October to January, 4/6; 50, 8/6; 100, 16/=; or a beautiful dozen for 2/6.
- 12 Magnificent Japanese varieties for exhibition, 2/6; 25, 4/10; 50, 9/6; 100, 18/6.
- 25 Charming Singles for greenhouse or conservatory, 4/6; 50, 8/6.

**SPLENDID PLANTS. TRUE TO NAME.**

Packed by an expert in damp moss and special boxes.

All carriage paid to your door.

If we have not exactly quoted your requirements, please let us know. We are anxious to serve you well. If you have bought "Mums" from other houses and been disappointed, give us a trial. Buy from Specialists. You will get sumptuous satisfaction.

**Our Catalogue is Free. Send to-day.**

**LEGG BROS., Specialists, 15 MOSELEY, Worcestershire.**

## GREEN'S MOWERS AND ROLLERS

Established nearly a Century.

BY SPECIAL WARRANT.

Appointed Makers



to His Majesty

King Edward VII.

**Are the Best in the World.**

Known and appreciated throughout the World.

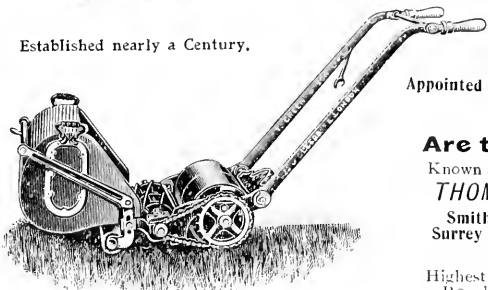
**THOMAS GREEN & SON, Ltd.,**

Smithfield Iron Works, Leeds, and New  
Surrey Works, Southwark St., London, S.E.

Please write for 1 rice List.

Highest Awards, Royal Botanic Society, 1905-6;  
Royal Horticultural Society, 1905 and 1907.

**Sold by all Ironmongers.**



. . MY . .  
**CACTUS DAHLIAS**

Which have won for me 17 Gold and Silver Medals  
all over Ireland, and have never been beaten at  
R.H.S.I. Shows, include the very finest varieties  
only, and are quite the best in Ireland.

Price from 3/6 Dozen upwards.

**EARLY AND LATE FLOWERING CHRYSANTHEMUMS**  
are also extra choice, and very select ; I grow these  
by the thousand.

List Free.

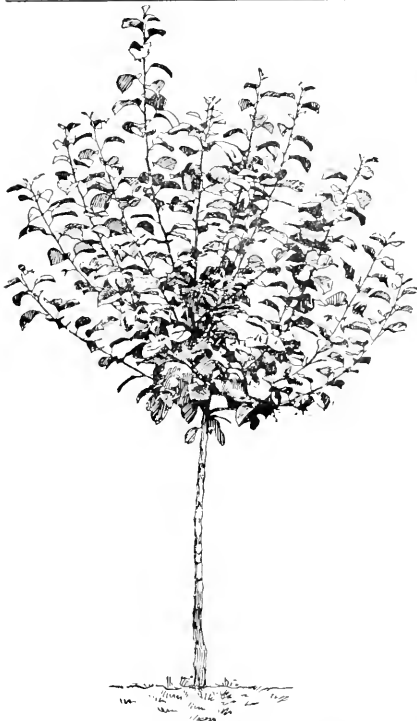
**BEDDING PLANTS** in all usual varieties are done in very  
large quantities and splendid quality.

Lists ready in April.

All Dahlias, Mums, and Bedding Plants free for Cash Orders value 3/6

**JONES, F.R.H.S.,** Forest Lodge Nurseries,  
**GOWRAN.**

Nurseries, 17 acres. Seed Dept. - 68 High Street, KILKENNY.



From a Photo of one of my 3-year-old trees growing in  
the Nursery. This is my type of  $\frac{1}{2}$ -Standard.

Telegrams : "JONES, GOWRAN."

**EDMONDSON'S**

# **PRIZE BEE HIVES**

The C. D. B.  
The Two-Crate.  
The No. 1.

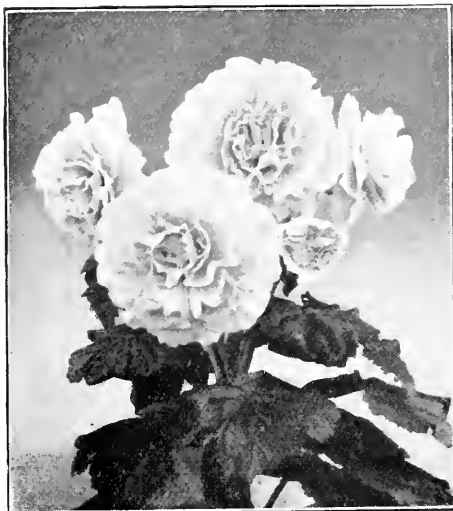
**Bar Frames, Sections,  
Comb Foundation, and  
all Bee-keepers' Appliances.**

Illustrated Price List Free.

**EDMONDSON BROS.,**  
10 Dame St., DUBLIN.







One of our Ideal Double Begonias, grown and photographed without a stake to plant or bloom.

# Blackmore & Langdon's BEGONIAS

In Highest Quality for Exhibition, Conservatory, and Bedding Out.

Awarded 16 Gold Medals, 6 Silver Cups.

**SEED IN SEALED PACKETS.**

Double, 2s. 6d. and 5s.; Single, 1s., 2s. 6d. and 5s. Single also in separate colours. Also frilled and crested Single.

**GRAND LARGE TUBERS, TO COLOUR.**

Double, 5s., 12s. 6d., and 30s. per doz.; Single, 4s., 8s. and 20s. per doz. Mixed Doubles, 3s. 6d. per doz., 25s. per 100. Semi Doubles (cheapest bedders), 10s. per 100. Mixed Singles, 2s. 6d. per doz.; 7s. 6d. per 100.

Extra Frilled Single Begonias. Seed, 1s., 2s. 6d. and 5s.

## American Winter-Flowering and BORDER CARNATIONS.

A Grand Collection of all Sections. Our New Illustrated Catalogue, with Cultural Instructions, post free. Special offer during March and April of one dozen rooted Cuttings of American Carnations, in 12 choice varieties, for 6s.

## Twerton Hill Nursery, BATH.

# SHANKS'S WORLD-RENOWNED LAWN MOWERS

BRITISH MAKE THROUGHOUT.

**HIGH-WHEEL "TALISMAN."**  
CUTS AS CLEAN AS A RAZOR.

THE BEST FOR  
GOLF GREENS



FITTED  
WITH  
BALL  
BEARINGS.

### AN EXPERT'S OPINION.

Herbert Park,  
Ballsbridge,  
DUBLIN, 20th December, 1907.

SHANKS'S LAWN MOWERS bore the brunt of the preliminary heavy work here; and in spite of the strain imposed on them by large stretches of late laid greensward and inevitable sprinkling of debris in the way of nails, bits of wire, &c., remaining after hand picking, they came through the ordeal unscathed, doing perfect work to the finish of the season.

I was particularly pleased with the High-Wheel "Talisman" and "Britisher," and think these Machines are as near perfection as it is possible to have Lawn Mowers.

(Signed) EDWARD KNOWLDIN, F.R.H.S.

Ironmongers, Implement Agents, and Seedsmen all sell them.

**ALEXR. SHANKS & SON, Ltd., Arbroath & London.** Established 70 YEARS.

## The PARAGON PEA TRAINER (PATENT).

SUITS any length of row. Easily put up or taken down. An ornament in the garden, keeping the growing Peas in neat straight lines. No trouble, always ready and will last for years with only a few pence outlay for any necessary renewal of training wire.

Excellent for Sweet Pea.

What users say in 1907:—

"I am delighted with my Pea Trainers, they are just splendid."—BAUFF.

"The Trainer worked very well with me and kept the Peas neat and tidy."—DUBLIN.

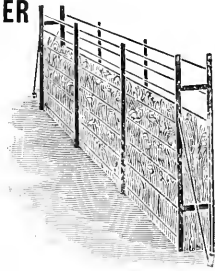
"Send me another Pea Trainer same as I had last year."—ROSTAVON.

Prices in sets complete:—

12 ft. row 4 ft. high	7/6.	5 ft. high	9/6
18 "	4 "	9/6.	5 "
24 "	4 "	11/6.	5 "
30 "	4 "	13/6.	5 "

Carriage paid to nearest station.

Write for fuller particulars.



**PARAGON PEA  
TRAINER CO.,**  
Bridge St., Banbridge  
Co. Down

## DAVID HENRY, Pembroke Nurseries, CARLOW.

Bedding Plant Specialist,

Offers immense quantities of the following.

All Orders 2s. 6d. or over free.

	Per Doz.	s.	d.		Per Doz.	s.	d.
<b>Ceraniums—</b>				<b>Dianthus</b>	-	-	0 4
Bronze	-	2	6	<b>Fuschias</b>	-	-	2 0
Crystal Palace Gem	-	2	6	<b>Caillardia Picta</b>	-	-	0 6
Flower of Spring	-	2	0	<b>Cypsochila</b>	-	-	0 6
F. V. Raspail	-	2	0	<b>Heliotrope</b>	-	-	1 6
Jacoby	-	2	6	<b>Japanese Hop</b>	-	each	0 3
Mrs. Pollock	-	3	0	<b>Lobelia</b>	-		
King Edward VII.	-	3	0	Dwarf Blue, per 100	2 6	0	4
Lady Sheffield	-	2	6	White	"	3 6	0 6
Vesuvius	-	2	0	Double Blue	"	4 -	0 8
Ivy Leaf	-	-	-	<b>Marguerites</b>	-	-	1 6
<b>Begonias—</b>				<b>Marigolds</b>	per 100	2 6	0 4
Separate Colours	-	3	0	<b>Musk—</b>			
Mixed	-	2	6	Common	-	-	1 6
Double Separate	-	5	0	Giant	-	-	1 6
Double Mixed	-	4	0	<b>Nasturtiums</b>	Many sorts		
<b>Ageratum</b>	-	-	0 6	per 100	3/6	0	6
<b>Antirrhinum—</b>				<b>Nicotiana—</b>			
Mixed	-	-	0 6	Affinis	per 100	3/6	0 6
White	-	-	0 6	Sanderea	"	4/-	0 7
<b>Asters—</b>				<b>Pansies—</b>			
Chrysanthemum, per 100	2 6	0	4	Seedlings	per 100	3/6	0 6
Ostrich Plume, per 100	3 6	0	6	Choice Named	-	-	2 0
Victoria	-	2/6	0 4	<b>Perilla</b>	-	-	0 4
Comet	-	2 6	0 4	<b>Petunia</b>	-	-	0 8
<b>Beet Dells</b>	-	-	0 4	<b>Phlox</b>	per 100	2/6	0 4
<b>Calceolarias</b>	-	-	1 6	<b>Pyrethrum</b>	"	2 6	0 4
<b>Carnation—Marguerite</b>	-	1	0	<b>Stocks—Ten-week, per 100</b>	2 6	0	4
<b>Chrysanthemum—</b>				<b>Sunflowers</b>	-	-	0 5
Annual sorts	-	-	0 4	<b>Verbena</b>	-	-	0 6
<b>Cornflower—Blue</b>	-	-	0 4	<b>Violas—Choice Named</b>	-	-	1 6
<b>Dahlias—One of the finest</b>							
Collections of Cactus	-	-	-				
Varieties in existence	-	3	6				

## BECKER BROS.

PRICES—  
2/5, 2/2, 2/-, 1/10, 1/8, 1/6, 1/4, 1/2.  
**TEAS.**  
PRICES—  
2/5, 2/2, 2/-, 1/10, 1/8, 1/6, 1/4, 1/2.

8 Sth. Gt. George's St.  
AND 17 Nth. Earl St. **Dublin.**

By Royal Warrant  
Horticultural Machinery



Manufacturers of  
to H.M. THE KING.

# RANSOMES' LAWN MOWERS.

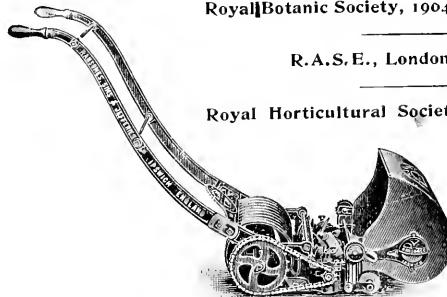
## THE BEST IN THE WORLD.

Royal Botanic Society, 1904, 1905, and 1906—GOLD MEDALS.

R.A.S.E., London, 1904—SILVER MEDAL.

Royal Horticultural Society 1906, 1907—SILVER MEDALS.

POSSESS  
IMPROVEMENTS  
CONTAINED  
IN NO  
OTHER MACHINES.



CHAIN OR WHEEL  
GEARING  
AS PREFERRED.

**Hand Power Machines**  
In all kinds and sizes.

**Horse & Pony Machines**  
For Large Lawns, Parks, &c.

**Motor Lawn Mowers**  
Nearly 200 supplied.

ILLUSTRATED CATALOGUES FREE.

# RANSOMES, SIMS & JEFFERIES, LTD., IPSWICH.

# FOR DESTROYING CATERPILLARS

On **APPLES**                      **PEARS**  
**GOOSEBERRIES**              **CURRENTS**  
**ROSES** and all other Trees

SPRAY  
WITH **SWIFT'S ARSENATE OF LEAD**

IT will supersede all other similar Insecticides, and is at present being used on the best Fruit Farms throughout England and the United States. **Experiments made in Ireland** last year with Swift's Arsenate of Lead **demonstrated its superiority** over Paris Green, London Purple, &c. See Department's Leaflet No. 85, and write for descriptive booklet with testimonials, &c.

**It kills all leaf-eating insects.**

**Suitable for all trees. It sticks on the leaves.**

**Rain will not wash it off.**

**No danger of burning or scorching the leaves.**

**Tends to produce better and larger fruit.**

**Used by many Irish fruit growers last year.**

## PRICES—

1lb. Tins	...	at 1s. per lb.	20lb. Wooden Pails	...	at 9½d. per lb.
5lb. Wooden Pails	...	10d. "	50lb. " Kegs	...	9d. "
10lb. " "	...	9½d. "	100lb. " "	...	8½d. "

**MANUFACTURED BY MERRIMAC CHEMICAL COY., BOSTON.**

Sole Irish Agent—

**D. M. WATSON, Chemist, 61 Sth. Gt. George's Street, Dublin.**

## SMITH'S 'PERFECT' WEED KILLER (Powder and Liquid).

### LIQUID.—Prices:

1 gal	2 0	8 gals.	0 12 6
2 "	3 9	10 "	0 14 0
3 "	5 6	12 "	0 17 0
4 "	7 0	16 "	1 2 6
5 "	8 0	18 "	1 5 0
6 "	9 6	20 "	1 8 0
40 gallons,	£2 10 0.		

One Gallon makes 25 Gallons for use. Packages extra, but allowed for on return.  
Carriage paid on 8 Gallons.

Irish Agent—

**D. M. WATSON, HORTICULTURAL CHEMIST,**  
**61 South Great George's St., DUBLIN.**

'Phone, 1971. Write for Booklet of Testimonials, &c.

### An Irish Testimonial.

Glendaragh,  
Newtown-Mount-Kennedy,  
Co. Wicklow.

I obtained several tins of Smith's Patent Weed Killer Powder, and used the preparation last year on walks and avenue here. Where the Powder was used all weeds were destroyed, and the walks kept perfectly free from weedy growths for the season.

B. St. G. DEANE,

Commander R.N. (retired), J.P. for  
Co. Wicklow.

### POWDER.

**A Scientific Triumph!**  
**Nothing like it ever seen before!**  
**Immediately Soluble in cold water!**

*All Tins Free No Return Empties.*

1 Tin, sufficient to make 25 gals.	£	s.	d.
4 "	0	2	0
8 "	0	7	0
*8 "	0	12	6
*12 "	0	17	0
*20 "	1	8	0
†40 "	2	10	0

Carriage Paid on 8 Tins.

\* Box 6d. extra. † Box 1s. extra.

**Correspondence—continued.****WINTER FLOWER-GROWING AS AN INDUSTRY IN IRELAND.**

SIR,—We are rapidly drawing to the end of the season for winter growing of violets, and though mostly owing to the excessive wet of last summer the plants came in late, and through a succession of frosty nights in November and December did not do so well as last year (a bumper year for growers owing to a specially favourable season and Riviera frosts), results have been good. One great cause for satisfaction is the greater demand for winter flowers. This we can see by the increased sales for the month over same month last year. Another reason for congratulation has been the increased price for violets received from the salesmen during the spring months. This I feel certain points to the fact that buyers are realizing that the home-grown flower is preferable to the French, which, though sold cheap enough by the hawkers, is generally nearly scentless; indeed, on the whole, the outlook is good. From an eight-years' experience now I can note an annual increasing demand for winter flowers in the markets of the United Kingdom. What is wanted, however, from the grower is great care and attention in producing the article for the market.—Yours faithfully,

J. H. MILES.

✿ ✿ ✿

## Shows.

**Royal Horticultural Society of Ireland.**

THE Spring Show was held in the Royal University Buildings, Dublin, on April 8th and 9th, in fine but cold weather. Despite the severity and backwardness of the season, it was much better than was generally expected. Bulbs, generally, are not flowering or giving so fine blooms this year as is usually the case, so that the fine display of hyacinths, tulips, and narcissus in pots and cut flowers at this show was much better than the writer expected, and speaks not a little for the cultivation, care and attention bestowed by the growers upon the exhibits to get them to such perfection. This points to the usefulness of shows to give impulse to endeavour and impel all to excel in whatever branch of gardening they take in hand. The attendance of the general public left much to be desired, and unless the shows of this society are better attended in the future some extra attraction will have to be provided to draw a crowd, as beautiful flowers, fruit, and vegetables do not seem to appeal to the people of Dublin. All arrangements for the show were perfect, and reflected much credit on Mr. Keating and his able tent committee.

Classes 1 to 23, inclusive, were for pot plants of various kinds, the best being Mr. Laidlaw's mignonette; Mrs.

**SUMMER GARDENING.**

THE "bedding-out" time will shortly be here, despite April's wintry weather, and gardeners everywhere will be making ready plants to ensure bright beds for the Summer. Professional gardeners will have grown quantities of the plants most suitable for the purpose, but meritorious novelties are worth adding; stocks wear out and require replenishing with new blood, and losses of stock from causes outside the gardener's control will occur. It is here the nurseryman proves of service. Visitors to last year's International Exhibition were greatly struck with the glowing beds planted by Messrs. WATSON & SONS, of the Clontarf Nurseries, Dublin. This firm's new copyright catalogue of Summer Bedding Plants may now be obtained free by post, and those who desire up-to-date Summer beds will here find all they require. Wonderful quantities of all varieties have been propagated during the Winter, and are now being hardened off; and, as Messrs. WATSON do not believe in growing good stuff and spoiling it when despatched, a special feature is made of packing country orders at Clontarf, where Messrs. WATSON attend personally to their clients' instructions. Attention is directed to the fact that all the plants offered have been transplanted from the seed-beds or grown singly in pots.

**P. J. BYRNE,**

Horticultural Builder and  
General Contractor

32 SHELBOURNE ROAD,  
DUBLIN.

Established 1830.

**CROSS'S "GARDEN FERTILISER,"****GARDEN SEEDS,****Alex. CROSS & SONS, Ltd.,**

Horticultural Specialists,

**GLASGOW.**

(Almost 100 YEARS Established.)

**AND INSECTICIDES.****On Sale by ALL SEEDSMEN.**

Goodbody's tulips, Miss C. B. O'Meara's arum lilies, Sir E. Cochrane's azaleas, and Mr. L. A. Mullar's exotic ferns.

Cut blooms were Classes 24 to 44 of the Schedule, and include nine classes for narcissus, the chief prize-winners being Mr. C. M. Doyme, Wells, Gorey; Mr. R. T. Harris, Killiney; and Mr. D. Drimmie—a few of the finest varieties being Victoria, Duke of Bedford, M. J. Berkeley, Horsefieldi, Emperor, King Alfred, Maximus, and Golden Bell Trumpet, while Agnes Harvey, Flamingo, Vesuvius, Flora Wilson, White Lady, and Constellatum in the other sections of Narcissus were good. Roses were given four classes, and were the great attraction of the show, the blooms staged by Mr. D'Olier and Mr. Bewley being magnificent, and only wanting a little more taste and better staging to equal even the best trade exhibits we have seen from Messrs. Dickson at former spring shows. The Silver Medal for 24 Roses was deservedly won by Mr. D'Olier, grand flowers of Mrs. E. Mawley, Frau Karl Druschki, Maman Cochet, White Cochet, and extra good, Maréchal Niel, being amongst his best. Had Mr. Bewley made a better selection from his non-competitive exhibit of 13 dozen cut roses awarded a gold medal he might have changed positions with Mr. D'Olier. Mr. Bewley had

an easy win for 12 Tea Roses, and Mr. D'Olier was first with M. Niel.

Vegetables and fruit were good. Cooking apples were a large class. Tower of Glamis, wonderfully well kept, very heavy and plump, was an easy first for Capt. Riall, while his Cox's Orange Pippin, equally well kept, was also first for dessert varieties, King of the Pippins, from Mrs. Meade Coffey, being second. All the Blenheim Oranges were shrivelled and very light. Second prize in the cooking class went to Bramley Seedling, and third to Wellington, a good dish of Alfriston being passed over without even a commended ticket.

The extra exhibits by nurserymen were one of the chief features of the show. The Narcissus from Lissadell, which included grand bunches of Katherine Spurrell, Minnie Hume, A. J. Berkeley, Incognita, Lulworth, Victoria, and Poeticus Cassandra, were awarded a gold medal. Hogg and Robertson had St. Brigid anemones of very good colours, size and form, while included in their grand collection of narcissus were Mr. J. Shorley, Flambeau Orphie, C. J. Blackhouse, Glory of Leiden, Duke of Bedford, Mrs. M. Bain, Madam Plomp, Snowflake, and Henry Irving. A gold medal was awarded. Mr. Charles Ramsay, Ballsbridge, had a very large group of pot plants,

Registered Trade Mark.

**“SHEFA”**

**CASH WITH ORDER.**

**ODOURLESS! CLEAN! SOLUBLE!**

An improvement on all other fertilizers for Garden and Greenhouse. Exceptionally High Analysis. Economical. Will appeal to Ladies. Brings Flowers, Fruit, and Vegetables to perfection. Commence using now. Tins. **1 6, 2 6** (size recommended), sufficient for 100 gallons, and **5 -**. Post free.

**VALROFF & CO.,**

**Horsleydown, Tower Bridge Approach, LONDON.**

# WIREWORMS! GRUBS!

**Woodlice, Grubs, Leatherjackets, Ants, Beetles, Julus= Worms, Eelworms, Centipedes, Millipedes, Slugs, &c.**

VAPORITE worked into the soil as directed completely destroys these insects without the slightest injury to the plants.

VAPORITE is non-poisonous—no special tools needed—no trouble involved.

VAPORITE will make a great difference in your garden—the insects are killed in a few hours (at longest in a few days).

Use VAPORITE on Potatoes, Cabbages, Carrots, Artichokes, Turnips, Parsnips, Onions, Marrows, Radishes, Celery, Tomatoes, Strawberries, Sweet Peas, Flowers, and in fact on all crops.

VAPORITE is the original article—there are many mean imitations on the market.

You do not offer counterfeit money, therefore do not accept counterfeit goods.

## VAPORITE

**Is causing a Revolution in many branches of Horticulture.**

**Vaporite** { In tins, 9d., 2/- and 4/6. In casks,  $\frac{1}{2}$  cwt. (carriage paid), 7/6.  
In casks, 1 cwt. (carriage paid), 11/6.

Obtainable from all Seedsmen, &c. Write for new three-color Booklet No. 53, explaining all about Vaporite and its remarkable effect on vegetables and flowers.

**STRAWSONS (Dep. 16), 71a Queen Victoria Street, LONDON.**

which included well-grown ferns, azaleas, rhododendrons, citrus, aurs and palms, and some grand vases of roses and American tree carnations, White Perfection, Hallwarden, White Lawson, and Mrs. Burnett being about the best vases of carnations in a very fine exhibit. A gold medal a so awarded, and well deserved. Messrs. Watson, Clontarf, had some lovely floral designs, also wreaths and crosses exquisitely executed, and a gold medal was awarded. Heath, of Cheltenham, had grand carnations (Robt. Craig Aristocrat), lovely orchids in variety, and a large and varied collection of hardy plants and scented-leaved geraniums. Awarded a gold medal. W. T.

## Athboy "Daffydowndilly."

THIS show was held on Tuesday, April 21st, in the National Schools, which were kindly lent for the occasion. The weather was fine and the attendance exceptionally good. The entries were numerous, and the exhibits in the several classes—open, amateur and cottagers—of a high order of merit.

In the classes for Narcissi, which were well filled, the following varieties were especially deserving of notice:—Madam de Graaff, Glory of Leiden, Madam Plomp, Maximus, Golden Bell, Victoria, Albatross, Vesuvius, M. J. Berkeley, Sensation, Poiteau, Duchess of Westminster, Katharine Spurrell, Orange, Sulphur and Golden Phoenix, besides all the best of the older varieties.

The principal prize-winners were:—For 3 pots cinerarias, Mrs. Murray; 2nd, Mrs. Hone Dyas. Thirty varieties of daffodils (3 blooms), C. W. Parr; 2nd, Mrs. McVeagh; 3rd, Mrs. Wilkinson. Eighteen varieties of daffodils (5 blooms), prizes presented by Messrs. Hogg and Robertson, Mrs. McVeagh; 2nd, C. W. Parr; 3rd, Mrs. Carew; highly commended, Mrs. Moore, Cavan. Primulas (3 pots), C. P. Coghill; 2nd, Mrs. Hone Dyas. Twelve distinct varieties, special prize presented by Messrs. Joseph Orr and Sons, Belfast, C. W. Parr; 2nd, Mrs. McVeagh; 3rd, Miss Wilkinson. Roses (6 blooms), Mrs. Hone Dyas; 2nd, Mrs. Murray; highly commended, Mrs. Langan. St. Brigid anemones, Mrs. Carew; 2nd, Miss Taylor. Best arranged basket of daffodils, Mrs. Parr; 2nd, Mrs. Murray. Twelve vases of hardy cut flowers, C. W. Parr; 2nd, Mrs. Parr; 3rd, Mrs. Hopkins. Four pots of daffodils, prizes presented by Messrs. Alex. Dickson and Son, Ltd., C. W. Parr; 2nd, Mrs. McVeagh.

In the open classes Messrs. McGredy's prize was won by C. W. Parr, and in the amateur and cottagers' sections Messrs. Hugh Dickson's was divided between Mrs. Bracken and C. W. Parr.

When the accounts are completed it is hoped to have a fair balance for the Royal National Hospital for Consumption.

Special thanks are due to Mr. C. F. Glasnevin, for his competent judging; also to the many friends who helped so liberally with the prizes.

Entirely  
Chemical.

# CANARY GUANO

Always  
Uniform.

THE BEST FERTILIZER IN THE WORLD.

USED IN EVERY CONTINENT.

*From Mr. G. Wythes, Head Gardener to the Duke of Northumberland, Syon Gardens, Brentford.*

I am much pleased with Canary Guano. I have found our lawns dressed with it have greatly benefited. It is most valuable for pot plants under glass. It is soon taken hold of by the roots and is a safe plant food.

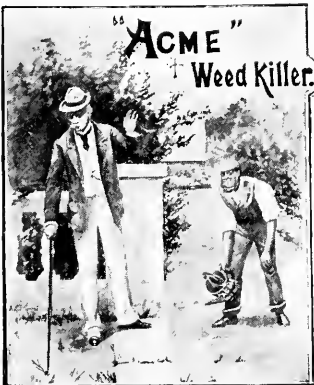
Guaranteed  
Analysis  
with every  
Tin and Bag.

Sold by Seedsmen, &c., in 6d., 1/-, and 2/6 Tins. Bags, 14-lbs, 4/6; 28-lbs, 7/6; 56-lbs, 12/6; 1-cwt. 20/- each, or sent direct from Ipswich, carriage paid in United Kingdom, for cash with order. (6d. Tins 10d., 1/- Tins 1/3.)

**Canary Guano is essential to secure perfection in Flower, Fruit and Foliage.**

*Write for pamphlet with particulars of 37 different Fertilizers, sent free and post paid, to the Sole Manufacturers.*

**THE CHEMICAL UNION, LIMITED, IPSWICH.**



## CLEAN PATHS.

## CLEAN PLANTS.

Used in the Crystal Palace Grounds, the Royal Horticultural Society's Gardens, Kew, and in the principal Gardens of the United Kingdom.

### STRENGTH, 1 in 25.

### 1 Gall. to 25 Gall. of Water.

1 Gall. 2s. 3d., tin free; 5 gall. 7s. 6d., drum, 2s. 6d.; 10 gall. 13s. 4d., drum, 5s.; 40 gall. 50s., cask, 5s. Carriage paid on 5 gallons and upwards.

### DOUBLE STRENGTH.

### 1 Gall. to 50 Gall. of Water.

1/2 gall. 2s., tin free; 1 gall. 3s. 6d., drum, 6d.; 5 gall. 14s., drum, 2s. 6d.; 10 gall. 25s. 6d., drum, 5s. 40 gall. 90s., cask, 5s. Carriage paid on 2 gallons and upwards. Empties allowed for when returned.

## "ACME" POWDER WEED KILLER.

Sizes

No. 1

No. 2

No. 3

Tins free

To make 25 gallons

50

100

Per tin

1s. 9d.

3s. 3d.

6s. 0d.

Soluble in cold water. No. 3 carriage paid. Prices for larger quantities on application.

## COMPOUND QUASSIA EXTRACT INSECTICIDE.

Safest and best for all purposes. Certain death to Aphis, Red Spider, &c., &c. Sample pint sufficient for 10 gallons, 1s. Post paid. Try it.

ACME CHEMICAL CO., Ltd.,

TONBRIDGE, KENT & RIVER ST., BOLTON, LANCs.

"Weeds, weeds everywhere! I wonder it that new gardener can suggest anything?"

"Yes, sir. I'm just using the 'Acme' Weed Killer. The best in the world for killing weeds."

## Answers to Correspondents.

**INJURED FLOWER SPIKES.**—The flower spikes of the *Astilbe* (*Spiraea*) *japonica* have suffered from some mechanical injury, for there is no sign of disease present. Probably the injury has been caused by giving too much ichthemic guano. The directions on the tin should be strictly followed. *Spiraea japonica* requires abundance of water and should not be allowed to get dry at the roots. When in full growth the pots can stand in pans or saucers of water, and one weekly application of soot-water and one of ichthemic guano will be sufficient instead of two doses of each.

**DOUBLE WHITE ROCKET.**—In answer to a correspondent's queries Mr. Tyndall supplies the following:—This is one of the most useful early summer hardy flowering plants, yet how often do we find it dying off in winter, even in many good gardens. This being so, it is not as often met with as its merits deserve. That it is perfectly hardy there can be no doubt, as note how well it is grown in many parts of Scotland and North of Ireland. Some gardeners believe that certain grubs are the great cause of the mischief, weakening the plants, which if they are not actually killed give but poor flowers. This leaf-roller grub lives on the plants all through the winter, and in the spring does much damage to the young growths and foliage. Hand-picking is the only thing to free the plants of the pest. Where fine spikes of flowers are desired, or where the plants suffer much, annual propagation should be done by dividing old plants or, better still, striking cuttings from the growths, which in the autumn push from the base of the plant and sometimes for a considerable way up the stems. September is a good time to propagate either by division of old plants or by putting in cuttings under a handlight or cold frame, and planting out in well-manured stations in

WHEN IN BELFAST, LUNCH OR DINE AT

YE OLDE CASTLE,

CASTLE PLACE.

—The Finest Restaurant in Ireland.—

Telephone 1250. Wires: "Diet, Belfast."

200 Highest Awards: Gold Medals from all the Principal Exhibitions.

## PURE ICHTHEMIC GUANO.

The Most Reliable, The Richest Food, and the Most Natural Fertiliser

Supplied in Tins and Bags, 6d. to 20/. Carriage paid on quantities of 28-lbs. and upwards.



**FAME'S FERTILISER.**  
Swift, Safe, and Sure.

Supplied in Tins and Bags, 6d. to 20/. Carriage paid on quantities of 28-lbs. and upwards.

May be obtained from the principal Nurserymen, Seedsmen, Florists and Chemists, or DIRECT OF—

The Sole Proprietors and Manufacturers,  
**WM. COLCHESTER & CO.,**  
IPSWICH, England.

## PANSIES.

Bath's Empress Pansies are unsurpassed and unsurpassable in size, markings and brilliant colours—strong plants, 30, 2/-; 100, 5/-. I offer the following Pansies, mostly in bud or bloom, not less than 20 of a sort, at 2/- 100, free:—Bath's Monarch, Bath's Giant White, Purple or Yellow; Odiers, Bugnots or Cassiers, Blotched; Clivedon White, Purple or Yellow; Trimmerdeau White Dark-eye, Yellow Dark-eye, Dark Blue, Parisian Large Stained, Mixed, Madame Perret, Snow Queen, Emperor William, Victoria, Cardinal, Lord Beaconsfield, Peacock, King of Blacks, Belgian, Choice Mixed; Violas, Yellow Gem or Choice Mixed. Smaller Plants of Violas, Imperial Blue, Purple King and Osborne, White Wallflowers—Sutton's Superb Mixed, 20, 1/-; Sweet William, Holborn Glory, 20, 1/-; Holborn Glory—Pink Beauty (new), 20, 1/-. Everlasting Peas—Red, White or Pink, 9, 1/-. Carnations, Double Mixed, from Seed, 12, 1/-. Foxgloves—Sutton's Giant-spotted, 12, 1/-. Double Daisies—Rob Roy, Scarlet, 15, 1/-; Cevre's Pink, 15, 1/-; Ancuba, Leaved (Red), 15, 1/-; Goliath, Mottled, 15, 1/-; Double White, 15, 1/-; Dresden China, Pink, 15, 1/-, and many others. Lupinus—Snow Queen, grand for cutting, 9, 1/-. Poppy—Oriental or Icelandic, Mixed, 12, 1/-. Primroses—Double White or Mauve, Single, Red, 6, 1/-. 13 Packets Choice Annuals, 1/-; 13 Packets Choice Sweet Peas, 50 Seeds each, 1/-. 2/- orders free.

J. CUNNINGHAM, F.R.H.S.,  
Shergrim,  
OMAGH.

## WALSH'S GIANT FLOWERING SWEET PEAS

"THE BEST THAT GROW."

EXHIBITION COLLECTION,

containing 21 Best Varieties, recommended by N. S. P. S.

46 POST FREE.

POPULAR COLLECTIONS.

No. 1 containing 25 selected varieties, about 1250 Seeds,	1
No. 2 " 25 " " " 2000 " "	1 6
No. 3 " 25 " " " 4000 " "	2 6

POST FREE.

Illustrated Seed Catalogue and Guide free on application.

## WALSH'S ROSES AND FRUIT TREES.

EXTRA STRONG, HARDY, WELL-ROOTED,  
TRUE TO NAME.

Hundreds of Thousands to select from.

Descriptive List Free.

**JAMES WALSH,** Seedsman &  
Nurseryman,  
**PORTADOWN.**



the herbaceous border towards the end of March or in April. If many cuttings are required, cut the old plants over fairly low down after flowering, so as to induce new growth quickly. Many of these can often be taken off with plenty of roots attached in September and planted so as to get established before severe weather sets in. A purple-coloured variety of Double Rocket is also often met with, but is not so useful as the white form, though the latter often has a good tinge of pink in the white.



"TICK-SEED."—An Amateur (Belfast)—The *Coreopsis* (or *Calliopsis*) is the "Tick-seed" of the United States, of which it is a native. The genus comprises both annual and perennial species, all of which have showy flowers, and are particularly effective when grown in masses. *C. Drummondii* and *C. tinctoria* are well-known examples of the former, and *C. grandiflora* and *C. lanceolata* (a splendid plant for cutting) of the latter. The average height of the garden species is one-and-a-half feet, and the prevailing colour yellow or golden. The annual species are, of course, raised by seeds, which may be sown in the open from April to end of September for succession. The perennials may either be propagated by seeds, cuttings, or division of the "roots." They may be grown in ordinary beds or borders or on the rockery. The cut flowers keep fresh for a long time in vases. They are all hardy, and belong to the daisy family (*Compositae*).

MIMOSA PUDICA OR SENSITIVE PLANT.—Mr. Toner answers L. L.'s queries. The Mimosa is a native of Brazil, and requires stove or greenhouse cultivation. It grows to a height of twelve or fifteen inches, and the foliage, which is light and fern-like, has the peculiar quality of being sensitive to, or being irritated by, the touch. It is principally on this account that it is cultivated, and it is a special favourite with beginners and amateurs, who experience much pleasure and amusement in making their friends acquainted with its remarkable behaviour. The leaves are composed of a number of leaflets, and on being touched these close up immediately, and

## SLUGS, WIREWORM & C. DESTROYED & PLANTS INVIGORATED

By a Dressing of "ALPHOL." A valuable Manure which Destroys Insect Pests in the soil without injury to the plants. Try it now. 28 lbs. will dress 250 square yards. 7 lbs., 2/-; 14 lbs., 3/-; 56 lbs., 8/6; 1 cwt., 15/-. Every enquiry welcomed.

BOUNDARY CHEMICAL CO. LTD. GRANMER ST. LIVERPOOL

## Vegetable, Flower, and Farm Seeds

From the Finest Stocks and Strains in Cultivation.

Catalogue Post Free.

**Browne, Thompson & Co.,**  
Seedsman, CORK.

Telegrams—"THOMPSON, SEEDSMAN, CORK."

## IMPORTANT TO GARDENERS and Fruit Growers.



# "Niquas"

(Registered).

The most successful Non-poisonous Insecticide of the day.

ITS ADVANTAGES ARE—

Certain death to all Insect Pests.

No possible injury to the most delicate Plant, Flower or Foliage. It is by far the cheapest Insecticide known. One pint makes ten to twelve gallons for Thrip, Black and Green Fly, etc., whilst RED SPIDER, Mealy Bug, and Scale can be thoroughly eradicated by using "NIQUAS," double or three times the strength required for Fly.

PRICES—Pint, 1/-; Quart, 1/9; Half-Gallon, 3/-; Gallon, 5/-; Kegs, each Five Gallons, 22/6; Ten Gallons, 42/6.

Ask for Testimonials, of which some hundreds have been received.

### SPECIMEN TESTIMONIAL.

From Mr. E. HUBBARD, Gardener to G. Hanbury, Esq., Blythwood, Burnham, Bucks, May 15th, 1906.

"I have been using your "NIQUAS" Insecticide for some years, and can with all confidence say it is the best I have ever used for Bug, Thrip, Red Spider, American Blight, and for all Insect Pests it has no equal. Also for the destruction of Maggots in Marguerites by dipping.

"I have recommended it to my friends generally."

## LETHORION

IMPROVED METAL

## VAPOUR CONE

FOR FUMIGATING.

At Greatly Reduced Prices.

INTRODUCED 1885.



(Registered Trade Mark.)

This well-known invention for the entire eradication of all pests infesting vegetation under glass is now manufactured in a more simple and reliable form. The small candle, which will be found packed with each cone, has only to be lighted, and placed on the ground in the centre of the Cone frame, to produce immediate results. Nothing on the market can equal it for efficacy and cheapness.

Cone No. 3, for a well-secured house of cubic 2,000 to 2,500 feet, 1/- each. Cone No. 2, for a well-secured house of cubic 1,000 to 1,200 feet, 8d. each. Cone No. 1, Carbon, for frames of cubic 100 feet, 6d. each. Full directions accompany each Cone.

Ask for a List of Testimonials, of which some hundreds have been received from the leading gardeners in the Kingdom.

To be had from all Seedsmen and Florists.

MANUFACTURED BY

**CORRY & CO., LTD.,**

At their Bonded Chemical Works,

**SHAD THAMES, S.E.**

Office & Show Rooms:—13 & 15 Finsbury St., London, E.C.

should the plant be shaken even the upper and more tender parts of the shoots will suddenly droop as if badly in want of water or about to die. It is an annual plant, and is raised from seeds sown in brisk heat during February or March. As a rule they do not germinate evenly, and should be soaked for some time previous to sowing in warm water. When the plants gain the height of an inch or two they should be carefully transferred to three-inch pots, potting them on, when ready, into fives. Peat and loam in equal parts, to which one-sixth of sand should be added, will be found a suitable compost. Particular pains must be taken to ensure good drainage, as they quickly suffer from any tendency to sourness in the soil.

**VEGETABLE MARROWS ("D. M'A.")**—Make a mound of manure and vegetable refuse, about a barrowful in quantity, cover with soil. If the plants were raised in a frame they may be transferred and planted singly on the top of these beds, or the seeds may be sown, placing two or three seeds about  $1\frac{1}{2}$  inches deep, the seedlings to be thinned to the strongest later. Marrows are rapid growers and do well when treated thus, and produce fruit quickly. The plants must be watered in dry weather. Your other two requests will be remembered.

G. D.

**ROSE HEDGE ("Lex").**—There is no better way of 'showing off' the peculiar vigour and beauty of Crimson Rambler than by planting a hedge of it. You need only put in a few posts, with stout wire stretched between, to give the necessary support. See that the ground is well drained and trenched, and in two years' time you will have a gorgeous effect.

**CLIMBING PLANTS ("S. B. A.")**—We quite agree as to the decorative usefulness of these plants. The general plan is to use these of a perennial character to cover bare walls and fences, and hardy annuals or biennials as temporary screens for unsightly objects. Nor must you forget their striking effect trained on poles in beds and herbaceous borders. We hope this list will prove useful to you in selecting suitable subjects:—*Woody Perennials*—*Aristolochia siphon* (Dutchman's pipe), *Begonias* (trumpet flower), *Clematis*, sp. *Jasminum gracile*. *Herbaceous Perennials*—*Boussingaultia baseloides*, *Bryonia alba*, *Eccremocarpus scaper* (half-hardy). *Annuals*—*Echinocystis lobata* (wild balsam apple), *Cajophora lateritia* (Loasa), half-hardy; *Cobaea scandens* (half-hardy), *Cucurbita aurantiaca*, *C. melon* *asperma* and other sp. (Gourds) (half-hardy), *Ipomaea purpurea* (half-hardy). *Hardy Biennials*—*Adlumia cirrhosa* (climbing fumitory).

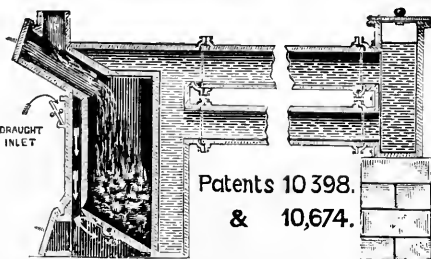
## The Boiler for Amateurs

### KINNELL'S SILVER MEDAL "HORSE-SHOE."

Will burn from 10 to 20 hours. Over 20,000 in use.

Awarded 2 Gold Medals by Botanical Society.

CHEAPEST BECAUSE BEST.



Patents 10 398. & 10,674.

Illustrated Catalogue, Plans, and Estimates free on receipt of particulars to—

## CHAS. P. KINNELL & Co., Ltd.

65 & 65a Southwark St., LONDON, S.E.

## To Lovers of their Gardens

You cannot do better than consult our Illustrated Guide for Amateur Gardeners, 164 large 4to pages, 190 illustrs. 2 beautifully coloured plates, and many cultural hints.

In it you will find catalogued every description of Vegetable and Flower Seeds, all of the finest quality, and at moderate prices.

It deals also largely with Nursery Stock—Fruit Trees, Roses, Plants, etc.—in fact with Everything Required for the Garden.

Our reputation has been built up on the QUALITY of the seeds and plants we sell.

Will be sent to all intending purchasers on receipt of 3d. to cover actual cost of postage.

## Daniels Bros. Ltd.

BY APPOINTMENT TO H.M. THE KING NORWICH.

**WEEDS DESTROYED GRASS INVIGORATED**  
ON LAWN, TENNIS COURTS, GOLF, BOWLING GREENS &  
**"CLIMAX" LAWN SAND**  
THE BEST DRESSING FOR WEEDY OR IMPOVERISHED LAWNS.  
TRY IT NOW.  
Sample tins, 1s., 2s., and 8s. 6d.; or 2s. 1b., to dress 100 square yards. 6s. carriage paid.  
Write for our Catalogue of Garden Helps.  
BOUNDARY CHEMICAL CO. LTD. CRANMER ST. LIVERPOOL

## WOOD TRELLIS ROSE PILLARS.

Unequaled in all respects for the cultivation of climbing roses.

### No. 2.

Height of ribs 8 ft., over all 10 ft. 8 in. Made with eight vertical wood ribs.

### PRICES—

Each ...	5/3 each
Three or more	4/9
Six or more	4/6

### No. 3.

Height of ribs 8 ft., over all 10 ft. 8 in. Made with four vertical wood ribs.

### PRICES—

Each ...	4/9 each
Three or more	4/3
Six or more	4/-

Taller Pillars, 6d. per foot extra.

Painted two coats Carbolineum.  
Carriage paid to Ireland.

Heavier Pillars in other designs, up to 26/-  
Send for our list of special Rose Trellises, Arches, Pergolas, Arbours, all made in wood, post free.

## WALTERS & CO.

(DEPT. A.),

16 Water Lane, Great Tower Street,  
LONDON, E.C.



**FURNITURE**  
**CARPETS**  
**CURTAINS**  
**LINOLEUMS**  
**BEDSTEADS, &c.**

AT  
**Lowest CASH Prices**  
 OR BY  
**Gradual Payments.**

TERMS AND PRICE  
**LISTS FREE.**

DINING-ROOM DRAWING ROOM SUITES FROM £6 10s. to £15 10s.

**J. H. WEBB & CO., LTD.,**  
**CORNMARKET, DUBLIN.**

## "NICOTICIDE" Fumigant.

Half-gallon Tin, containing sufficient for 100,000 cubic feet ..	60/-	} Carr. paid.
No. 1 size Tin—1 pint ..	40,000 ..	
No. 2 size Tin—4 pint ..	20,000 ..	
No. 3 size Bottle—6 oz. ..	12,000 ..	
No. 4 size Bottle—4 oz. ..	8,000 ..	
No. 5 size Bottle—1 oz. (sample) ..	2,000 ..	10d.

### FUMIGATORS.

1/- each, for 5,000 cubic feet.

### NICOTICIDE PLANT WASH For Outdoors.

4 Pint, 1/2; Pint, 2/-;  
 Quart, 3/6; 1/2 Gallon, 5/-;  
 Gallon, 10/-



Gow's Slug and Wire-  
 worm Destroyer,  
 Lawn Sand, Daisy  
 Eradicator,  
 Tobacco Powder and  
 Quassia Extract.

Sold in 6d., 1/-, also 2/6  
 Tins and larger sizes.

INSIST ON YOUR SEEDSMAN  
 SUPPLYING THEM.

**GOW'S WINTER ALKALI TREE WASH** for destroying Woolly  
 Aphis, Scales, Lichen Moss and Apple Suckers, &c. Half-gallon, 2/6; Gallon, 5/  
 carriage paid. One gallon will make 20 gallons solution.

**HUNTER & COW, 46 Thomas Street, LIVERPOOL.**

## Encourage Home Industry!

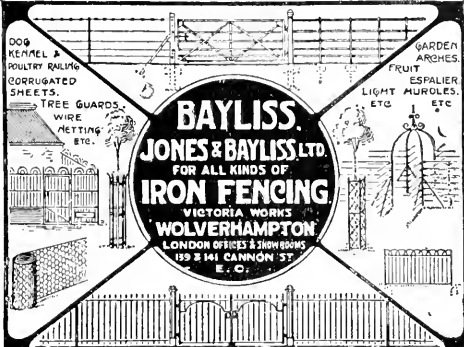
We can supply you with Greenhouses,  
 Poultryhouses, Dog Kennels and all Appliances  
 25 per cent. less than the foreigner.

### McLOUGHLIN & CO.,

Horticultural, Canine and Poultry Appliance

Manufacturers,

15 Berkeley Street, DUBLIN.



**BAYLISS.**  
**JONES & BAYLISS LTD.**  
 FOR ALL KINDS OF  
**IRON FENCING**  
 VICTORIA WORKS  
**WOLVERHAMPTON**  
 LONDON BRIDGE & SHIPWING  
 119 & 141 CANNON ST.  
 E.C.

## NOTICE TO READERS.

### BINDING.

A title page and index has been prepared for the second volume, and a copy of it will be sent post free to any address on receipt of a post card. Publishers' cases (cloth, gold-lettered) for binding are supplied at 1s. 6d. The publishers will bind the volume at an inclusive cost of 2s. 6d. Back numbers can be obtained to make up complete volume.

### A REQUEST.

We would take it as a great favour if our regular readers would be so kind as to introduce the paper to such of their friends as are likely to be interested in a magazine of that class. "Irish Gardening" is published with the view of increasing an interest in gardening in Ireland, and we ask our friends to help us in that work. It will always give us much pleasure to send specimen copies to any one whose name and address are notified to us on a post card.

### ADVERTISEMENTS.

The advertisements appearing from time to time in our pages represent only firms of recognised standing and repute in the trade, and we would suggest to our readers that they place themselves in communication with one or other of them before placing their orders elsewhere. This paper owes much to the support given to it by its advertisers, and we should like to know that our readers, like ourselves, appreciate that support.

## Miscellaneous Section.

### Gardeners Looking for the Best

and cheapest **Shading** to paint outside glass, to stick on all the Summer should ask for **Richards' "Sunshade,"** in dry powder to mix with water. Simple, cheap, and effectual. Gardeners anxious for the best **Fertilizer** should ask for **Richards' "XL ALL"** for Pot Plants, Fruit Trees, Kitchen Garden, and Lawn. Ask your Nurseryman or Seedsman for my small pink Price List of the world-renowned **"XL ALL"** Specialities, Fungicides, Compounds, Insecticides, Weed Killers, &c.

Supplies from Nurserymen, Seedsman, and Florists throughout the world. Be sure that you get the original patented inventions **"XL ALL."**

**G. H. RICHARDS, 234 Borough, LONDON, S.E.**

SECOND AND CHEAPER EDITION. JUST PUBLISHED  
Fcap. 8vo, Cloth, 438 Pages, 113 Illustrations. **4s. 6d.** net.

## The Horticultural Note Book

A MANUAL OF  
PRACTICAL RULES, DATA, AND TABLES

For the use of Students, Gardeners, Nurserymen, and others interested in Flower, Fruit, and Vegetable Culture, or in Laying-out and Management of Gardens.

By **J. C. NEWSHAM, F.R.H.S.,**

Headmaster and Manager of the Hampshire County Council Agricultural and Horticultural School.

London: **CROSBY LOCKWOOD & SON,**

7 Stationers' Hall Court, E.C., and 121A Victoria Street, S.W.

**J. NESS & CO.,** 12 Sandside, Scarborough, Garden and Lawn Tennis Boundary Net Makers; also Rabbit, Stag, Fishing, Cricket, and other Nets.

**PROTECT YOUR GARDENS.**—Netting, strong, small mesh, 100 yds. by 1 yd., 4s.; by 2 yds., 8s.; by 3 yds. wide, 12s.; any width or length can be supplied; orders over 5s. carriage paid.—**H. J. GASSON, Net Works, Rye.**

**TRIM AGRICULTURAL & HORTICULTURAL SOCIETY.** The Committee of the above Society have fixed date for holding Show for Tuesday, August 18th, 1908. **PATRICK HEALY, Secretary.**

**IF YOU HAVE A GLASS ROOF THAT LEAKS,** a Conservatory to repair, or any kind of glazing work to be done, **CARSON'S PLASTINE** will save money, time, worry and annoyance consequent on the use of ordinary putty which cracks, crumbles, and decays. It saves the expense of constant renewals. **CARSON'S Wood Preservative** in green and brown, for Palings, Trellis Work, &c. The best paint for Greenhouses is **"Vitrolite."** Write for Catalogue. **CARSON'S, 22 Bachelor's Walk, Dublin.**

**THE JOYS OF GARDENING** are realized by using **"The Ashbourne"** Garden Fertilizer. The most concentrated and Complete Manure for Horticultural purposes. One and a half times as powerful as the largely advertised Garden Fertilizers in commerce—therefore more economical. Prepared on the most up-to-date methods. Of general uniform quality, highest solubility, with constituents correctly balanced for promoting a healthy, vigorous plant growth—per stone, 2s. 6d.; per cwt., 14s. 6d. **THE ASHBOURNE COMPANY, Nurserymen, Parliament Street, Dublin.**

## Pennick's Delgany Nurseries.

Specialite—Himalayan Rhododendrons



Flowering Shrubs, Fruit, Roses.

400 Feet Elevation.

New See **PERRY'S**  
and Rare Catalogue,  
**HARDY PLANTS Hardy Plant Farm,**  
**WATER LILIES Enfield, Middlesex.**

**WALSH'S GIANT-FLOWERING SWEET PEAS.**  
Cheapest offer in the Trade. All tested (unequalled). No. 1 Collection, containing 25 varieties, 1,250 Seeds, 1s., post free; No. 2 Collection, containing 25 varieties, 2,000 Seeds, 1s. 6d., post free. Catalogues free. **JAS. WALSH, Seedsman, Portadown.**

**NOTICE.**—Don't stake your Carnations till you have seen **PORTER'S IMPROVED COIL STAKE.** No tying required; Stakes last a lifetime. The greatest boon ever offered to growers. Only wants seeing. 7s. 6d. per 100; sample dozen, 1s. Carriage paid. Cash with order.—**A. PORTER, Stone House, Maidstone.**

**LAWN MOWERS.**—All makes. Lowest rates. Repairs to Lawn Mowers. Latest and only up-to-date Automatic Machinery used, under supervision of Lawn Mower Specialists. Machines sent for and delivered. Estimates given, lowest rates.—**THE DAIRY ENGINEERING COMPANY OF IRELAND, 21 and 22 Bachelor's Walk, Dublin. Telephone—912. Telegrams—"Experience," Dublin.**

**SALT.** Gardens and Orchards are much improved by using **Ground Rock Agricultural Salt.** For particulars apply—**FLOWER & McDONALD, 14 D'Olier St., Dublin.**

## Miscellaneous Section.

### Gardeners looking for the Best

and cheapest **Shading** to paint outside glass, to stick on all the Summer, should ask for **Richards' "Sunshade,"** in dry powder to mix with water. Simple, cheap, and effectual. Gardeners anxious for the best **Fertilizer** should ask for **Richards' "XL ALL"** for Pot Plants, Fruit Trees, Kitchen Garden, and Lawn. Ask your Nurseryman or Seedsman for my small pink Price List of the world-renowned **"XL ALL"** Specialities, Fumigators, Compounds, Insecticides, Weed Killers, &c.

Supplies from Nurserymen, Seedsmen, and Florists throughout the world. Be sure that you get the original patented inventions **"XL ALL."**

**G. H. RICHARDS,**

**234 Borough, LONDON, S.E.**

**LADY GARDENER.**—A trained Studley College student, holding Royal Horticulture Society's First Class Certificate, at liberty in September. Moderate salary. Apply D, Office of this paper.

**NOTICE.**—Don't stake your Carnations till you have seen **PORTER'S IMPROVED COIL STAKE.** No tying required; Stakes last a lifetime. The greatest boon ever offered to growers. Only wants seeing. 7s. 6d. per 100; sample dozen, 1s. Carriage paid. Cash with order.—**A. PORTER,** Stone House, Maidstone.

**IF YOU HAVE A GLASS ROOF THAT LEAKS,** a Conservatory to repair, or any kind of glazing work to be done, **CARSON'S PLASTINE** will save money, time, worry and annoyance consequent on the use of ordinary putty which cracks, crumbles, and decays. It saves the expense of constant renewals. Carson's Wood Preservative in green and brown, for Palings, Trellis Work, &c. The best paint for Greenhouses is "Vitrolite." Write for Catalogue. **CARSON'S,** 22 Bachelor's Walk, Dublin.

**THE JOYS OF GARDENING** are realized by using "The Ashbourne" Garden Fertilizer. The most concentrated and Complete Manure for Horticultural purposes. One and a half times as powerful as the largely advertised Garden Fertilizers in commerce—therefore more economical. Prepared on the most up-to-date methods. Of general uniform quality, highest solubility, with constituents correctly balanced for promoting a healthy, vigorous plant growth—per stone, 2s. 6d.; per cwt., 14s. 6d. **THE ASHBOURNE COMPANY,** Nurserymen, Parliament Street, Dublin.

**200 Highest Awards: Gold Medals from all the Principal Exhibitions.**

### PURE ICHTHEMIC GUANO.

The Most Reliable, The Richest Food, and the Most Natural Fertiliser.

Supplied in Tins and Bags, 6d. to 20/- Carriage paid on quantities of 28-lbs. and upwards.

**FAME'S FERTILISER.**  
Swift, Safe, and Sure.

Supplied in Tins and Bags, 6d. to 20/- Carriage paid on quantities of 28-lbs. and upwards.

May be obtained from the principal Nurserymen, Seedsmen, Florists and Chemists, or DIRECT OF—

The Sole Proprietors and Manufacturers,  
**WM. COLCHESTER & CO.,**  
**IPSWICH, England.**



### "IRISH GARDENING" PHOTOGRAPHIC COMPETITION.

As announced in our July issue we are offering three Prizes (10s., 5s., and 3s. 6d.) for the Best Photographs to illustrate an Article on

#### "How to Beautify the Home."

The Photographs must have been taken in Ireland, but otherwise the choice of subject is left entirely to the taste of the Photographer.

Photographs must be received not later than 15th August.

DEPARTMENT OF AGRICULTURE AND TECHNICAL  
INSTRUCTION FOR IRELAND.

#### INSTRUCTION IN FRUIT GROWING AND GENERAL GARDENING.

Application for admission to the 1908-9 Session of the Horticultural School at the Albert College, Glasnevin, Dublin, should now be made.

For particulars as to terms of admission, wages, &c., apply to **THE SECRETARY,** Department of Agriculture and Technical Instruction, Dublin.

**J. NESS & CO.,** 12 Sandside, Scarboro', Garden and Lawn Tennis Boundary Net Makers; also Rabbit, Stag, Fishing, Cricket, and other Nets.

**PROTECT YOUR GARDENS.**—Netting, strong, small mesh, 100 yds. by 1 yd., 4s.; by 2 yds., 8s.; by 3 yds. wide, 12s.; any width or length can be supplied; orders over 5s. carriage paid.—**H. J. GASSON,** Net Works, Rye.

#### THE SCOTCH FLAME FLOWER (*Tropaeolum Speciosum.*)

I can supply **extra strong** pots of this popular climber at 5/- and 7/6 per dozen, with directions for planting. 100 different named **Rockplants**, for any position my customer likes to name, for 28/6; 50 for 14/6; 25 for 7/9; from pots or ground. Send for List.

**Wood's Plant Club Label** is the best permanent metal label.

**J. WOOD,** Boston Spa., S.O., YORKSHIRE.

**LAWN MOWERS** sharpened and repaired by Automatic Machine. Lowest prices. **GARDEN SHEARS** and **EDGE TOOLS** ground. **STRAWBERRY PUNNETS.** **FRUIT BASKETS.** **BRODERICK & SON,** 11 and 12 CAPEL STREET, DUBLIN.

**TRIM AGRICULTURAL & HORTICULTURAL SOCIETY.** The Committee of the above Society have fixed date for holding Show for Tuesday, August 18th, 1908. **PATRICK HEALY,** Secretary.

**LISSADELL DAFFODILS** (Sir Josslyn Gore-Booth's).—These Irish Grown Bulbs are the finest procurable. Write for New Illustrated and Descriptive List, which includes many choice seedlings, to **J. A. COOPER,** Lissadell, Sligo.

# FRUIT TREES in all forms

Many thousands are being supplied yearly to Customers in all parts of Ireland, and are giving entire satisfaction . . .



Carriage is paid on all orders amounting to over £2 at Catalogue Prices to any Station in the UNITED KINGDOM.



Illustrated Catalogue and Cultural Instructions sent free on application. . .



CORDONS, BUSHES, PYRAMIDS and . . . TRAINED TREES, on Specially Selected Fruiting Stocks. . . . .



250,000 Trees to select from.



Customers ordering . . through the post may rely on receiving as good trees as those personally chosen. . . . .

Silver Medal awarded by the Royal Horticultural Society of Ireland for Collection of Fruit at Dublin Show, 1907.

W. SEABROOK & SONS, <sup>Fruit Tree Nurseries,</sup> Chelmsford

Royal Horticultural Society of Ireland

. . and . .

—National Sweet Pea Society—



Great Combined Show

Will be held by kind permission of the Senate

In the Royal University, Dublin

Wednesday, August 5th, 1908

Admission, 2 till 5, 2s. 6d.; 5 till 7, 1s.

Tickets at reduced rates, if purchased previous to day of Show, on sale at the principal Seed Shops in Dublin; and at the office, 5 MOLESWORTH STREET, Dublin

SOME LARGE PRIZES OPEN  
TO IRELAND  
For Vegetables, Fruit, Flowers,  
Honey, Eggs, Butter.

# ATHLONE SHOW, AUGUST 20th, 1908.

5,000 PRIZE SCHEDULES  
IN CIRCULATION.  
Apply—HAROLD SMITH,  
*Hon. Sec.,*  
Montree, Athlone.

## A Special Feature of this Show will be A Grand Display of Irish Horticultural Products

Organized with the assistance of the well-known Firms whose Joint Advertisement appears below. See also their Special Announcements in the Prize Schedule and Programme.

### The ASHBOURNE COMPANY, 15 Parliament Street, Dublin.

Seeds and Plants for Farm and Garden.

See our Special Exhibit at Show, from our own Nurseries, "the most elevated in Ireland."

### JONES, F.R.H.S., *Forest Lodge Nurseries,* **Gowran.** And 68 High Street, Kilkenny.

"Best Value" in Fruit Trees.

"Equal Value" in Forest Trees.

"Great Value" in everything

**600,000 FOREST TREES**  
were exported by

**WM. POWER & CO.,** Nurserymen,  
WATERFORD,  
During the past season to England, Scotland,  
and Wales.

### WM. TAIT & CO., 119 & 120 CAPEL STREET, DUBLIN,

Have presented a Special Prize for the  
Best Collection of Three Vegetables.

*See Schedule, page 41.*

### DAVID HENRY, Nurseryman and Seedsman, CARLOW,

Headquarters for all kinds of Plants.

BEDDING PLANT SPECIALIST.

See Advertisement in this issue. See Exhibit at Show.

### ALEX. DICKSON & SONS, Ltd., Seedsman & Nurserymen, 61 Dawson Street, Dublin.

Also at Belfast, Newtownards, Blackrock, and Ledbury.

### SAMUEL McGREDY & SON, PORTADOWN,

*The Specialists in Rose and Fruit Trees.*

SEEDS AND BULBS ONLY THE BEST.

Write for Illustrated Lists free.

By Appointment



Florists and Nurserymen  
to His Majesty  
the King in Ireland.

### Chas. Ramsay & Son, The Royal Nurseries, BALLSBRIDGE, DUBLIN,

Have presented a Special Prize,  
and will put up an Exhibit at  
Athlone Show.

### WM. WATSON & SONS, Ltd.,

Nurserymen and  
Florists, CLONTARF,

And 18F NASSAU STREET, DUBLIN.

*Business Established 1777.*

### SIR JAMES W. MACKEY, Ltd., SEEDSMEN AND NURSERYMEN, 23 Upper Sackville Street, DUBLIN.

See the Prize Schedule, page 42.

Everything for Garden and Farm.

The Athlone Show also affords an unique opportunity for seeing the actual results of recent efforts to develop Rural Industries in the Midlands of Ireland. Convenient Trains at reduced fares from all parts.

*Please mention this "composite" advertisement when writing to advertisers.*



Seedsmen, &c., to Her late  
Majesty  
Queen Victoria.



Quoi regio in Terris  
nostri  
non plena Laboris.

## Irish Grown Bulbs

AND

## High-class Seeds

For both Farm and Garden all over the Globe.

ALSO ONE OF THE

**FINEST** and **MOST RARE** COLLECTIONS

OF

Daffodils and . . .

May-flowering Tulips

EXTANT.

To ensure the very pick of the Stock write early for  
Catalogue, Season 1908, to

### Wm. Baylor Hartland & Sons.

*Royal Seedsmen, Nurserymen & Bulb Growers,*

ARD CAIRN, CORK, IRELAND.

Telegrams—"Priniceps, Cork."

**NON-POISONOUS**

**ABOL** WHITE'S SUPERIOR.  
The Best Plant Wash for Garden and  
Kills Mildew. Greenhouse.

it  
absolutely **ABOLISHES**  
Green and Black Fly,  
American Blight,  
Caterpillars, **APHIS**  
and all kinds of

MANUFACTURED UNDER A NEW PATENT.

**TRY IT** and you will agree. "It acts like a  
charm," also "an excellent remedy for  
mildew," "a little goes a long way."

$\frac{1}{2}$ -Pt., 1/- Pt., 1/6. Qt., 2/6.  $\frac{1}{2}$ -Gall., 4/- Gall., 7/6.

## "Abol" Syringe

**Best Sprayer.**

Does more and better work than  
other syringes double the size.  
TRY IT, and you will agree.

THE "ABOL" SYRINGE.



Prices: Syringes, 8/6 to 14/6. Postage, 4d.  
Bends, 1/6 extra.

Of all Seedsmen, Florists and Ironmongers, or on receipt  
of remittance from the

SOLE MANUFACTURERS—E. A. WHITE, Ltd.,  
Hop and Fruit Growers, Paddock Wood, KENT.

# MERRYWEATHER'S DWARF POLYANTHA

## PHYLLIS.

PRICE 1/6 EACH.

## THE ROSE.

Every Garden must Possess Them.

The most Graceful Habit.

The Brightest Carmine Pink.

The most Perpetual Flowering.

The best for Bedding.

The best for Cutting.

The best for Pot Culture.  
of any Baby Rambler yet sent out.

THE PEOPLE'S FLOWER.  
THE NATIONAL FLOWER.

All Strong and Home-Grown Plants.

**Notice the following Wonderful Bargain:—**

**COLLECTION "C," GARDEN ROSES.** The finest selection of **25 Garden Roses**  
in dwarf plants possible for **13/6** (with Acme Labels, **16/-**), carriage and packing free for cash with order.

**350,000 FRUIT TREES** of all kinds to select from.

A Grand Stock of Shrubs and Ornamental Trees.

Herbaceous Plants in great variety.

Send for Catalogue No. 21, full of interesting information and cheap prices, post free on application to

**MESSRS. H. MERRYWEATHER & SONS, LTD.,** (Dept. T.)  
Garden Specialists, **SOUTHWELL, NOTTS**

*Now Ready.**Post Free.*

# BULBS FOR GARDEN AND GREENHOUSE

DESCRIPTIVE CATALOGUE OF ORNAMENTAL, BULBOUS AND TUBEROUS-ROOTED PLANTS FOR AUTUMN AND SPRING PLANTING: DAFFODILS, GLADIOLI, HYACINTHS, LILIES, TULIPS, &c., &c.

SIR JAMES W. MACKEY, Ltd.

FOUNDED 1777

23 Upper Sackville St., DUBLIN

. . . M Y . . .

## CACTUS DAHLIAS

Which have won for me 17 Gold and Silver Medals all over Ireland, and have never been beaten at R.H.S.I. Shows, include the very finest varieties only, and are quite the best in Ireland.

Price from 3/6 Dozen upwards.

### EARLY AND LATE FLOWERING CHRYSANTHEMUMS

are also extra choice, and very select; I grow these by the thousand.

List Free.

BEDDING PLANTS in all usual varieties are done in very large quantities and splendid quality.

Lists now ready.

All Dahlias, Mums, and Bedding Plants free for Cash Orders value 3/6.

**JONES,** F.R.H.S.,

Forest Lodge Nurseries,  
GOWRAN.

Telegrams: "JONES, COWRAN."



From a Photo of one of my 3-year-old trees growing in the Nursery. This is my type of 1/4-Standard.

Nurseries, 17 acres. Seed Dept. - 68 High Street, KILKENNY

# ANEMONE ST. BRIGID

McGREDY'S GIANT PÆONY FLOWERED STRAIN



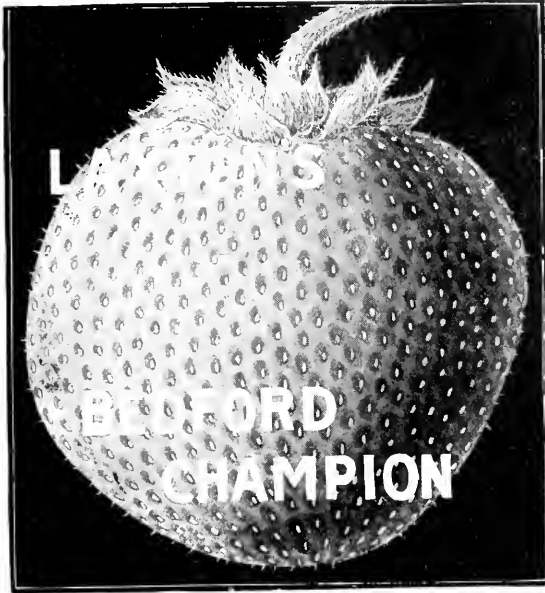
**W**E believe our strain of these beautiful Anemones is, without exception, the finest and most advanced selection in existence. For many years we have devoted special care to their improvement. Practically every flower is double, and the range of colour, especially in the Crimson, Scarlet, and Pink shades, has not been attained by any other grower, rivalling in form, size, and colour the Japanese Pæonies.

**BULBS.** Large selected Roots, magnificent double flowers 10d. dozen; 6s. 100

**SEED.** For present sowing, saved from double flowers ... 3d. and 6d. packet

*Bulbs and Seed post free*

**Samuel McGredy & Son,** Nurserymen and Seed Merchants, **Portadown**



# LAXTON'S

## New Strawberries

for 1908.

INCLUDING ALL THE BEST STANDARD  
VARIETIES FOR MARKET PURPOSES  
— AND FOR PRIVATE GARDENS. —

THE LARGEST CULTURES IN EUROPE,  
GROWN SPECIALLY FOR RUNNERS.

*A full Catalogue and Price List will be sent on application.*

# LAXTON BROTHERS, BEDFORD.

Recent Awards  
TO  
**Webb & Sons**

In 1908

Franco-British Exhibition  
GOLD MEDAL  
For Vegetables and Melons

Great Yorkshire Gala  
GOLD MEDAL  
For Gloxinias and Vegetables

Wolverhampton Floral Fete  
SILVER CUP

For Vegetables, Melons,  
Gloxinias, and Sweet Peas

SEEDS FOR PRESENT SOWING  
Illustrated Price List  
Gratis and Post Free

THE KING'S SEEDSMEN  
Wordsley, STOURBRIDGE

THE BEST CABBAGE FOR PRESENT SOWING



WEBBS' EMPEROR ("Britain's Great Cabbage")  
6d. and 1s. per packet; 1s. 6d. per ounce. Post free.  
The earliest and best cabbage in cultivation. Remarkably free from any tendency to "bolt"

## Correspondence—continued.

## FRUIT PROSPECTS.

SIR,—Seeing your notes on fruit prospects in 1908 I trust that by August or September we shall have a report of the strawberry crop of 1908. We would like to hear about the different districts in Ireland and about quantities of fruit sent from different districts, and names and varieties of strawberries principally in use.

Before proceeding to strawberries, however, I should like to make a short note on your remarks about the saw-fly, which for several seasons had made ravages amongst my gooseberry bushes; but I have nearly destroyed these by means of vaporite in early May, thickly scattered round the boles of the bushes—firstly removing all the old soil, and then adding fresh soil on the top of the vaporite.

STRAWBERRIES.—Three wet years in succession have to a certain extent damped my enthusiasm for strawberries, but this season has been simply perfect for this fruit here, starting from 17th June, finished off crop, 7th July, with hardly more than two hours rain at any time, and no rain to damage fruit. Unluckily, owing to the fact that I have to use so much land and time on violet growing, I have not much space to spare on strawberries, and this season found me with more than one-third of my land planted with six-year old plants of Royal Sovereign. In an ordinary spring this would not have so much mattered, but with a very cold April, and plants in an exposed position, these gave a very insufficient quantity of blossom, and consequently fruit. Of nine hundred runners put out in August during my absence from home, a nurseryman sent me a quantity of runners

## Summer Bloom.

DURING the hot, dry spell of the latter half of June there was little growth, and about Dublin roses were poor both in colour and size. The heavy rains which followed changed all this, and growth came on rapidly on everything out of doors.

Good things are always to be seen at Messrs. WATSON'S Nurseries, Clontarf, in the blooming season. Their Delphiniums were very fine this year, and they have a large collection of Pyrethrums. A plot of "Liberty" Roses (grown for cutting to supply the firm's floral branch in Nassau Street) promised well a fortnight ago, and the fine collection of Roses in general showed good growth. Fruit Trees are largely cultivated, also Shrubs and Ornamental Trees, and, having got through the rush of business occasioned by the summer bedding season, careful attention is being bestowed on the training and cultivating of all sorts of hard-wooded stuff by a skilled staff.

Border Carnations, a leading speciality of Messrs. WATSON, for which they have won prizes everywhere, are now coming into flower, and fanciers find it a great advantage to see varieties in bloom so near the city, enabling them to choose kinds for delivery at the proper season for planting. The same applies to Roses and all classes of nursery stock.

The Nurseries are only some fifteen minutes' tram drive from Nelson's Pillar by Howth or Dollymount cars, which run to and fro every few minutes.

## RATS IN GARDENS

Rats and Mice do an enormous amount of damage in Gardens, Greenhouses, Vineries, &c. "**Liverpool**" Virus has been used with conspicuous success in banishing these troublesome pests. The Virus is absolutely non-poisonous, and may therefore be safely used where there are Dogs, Cats, Fowl, Game, &c.

FOR RATS.

ISLAND OF HERM, April 7th, 1907.

"I am pleased to tell you that the Virus has proved most effective, and dead rats have been found at the further extremity of the island some three quarters of a mile away. I keep large quantities of old English game fowl, pheasants, emus and kangaroos in the coverts, so cannot use the ordinary poison. LEICESTER GOW."

## PRICES.

<b>PRICES.</b>		
" <b>Liverpool</b> " Virus for Rats ..	26	} per tube, post free, for cash with order.
Large Tubes, containing 6 times amount of Virus ..	8 =	
" <b>Liverpool</b> " Virus for Mice ..	16	
The Rat Virus also affects mice. Full directions are supplied with each tube.		

N.B.—If Rats are numerous the LARGE tube should be employed.

FOR MICE.

The Steward of a Nobleman writes: "The last tube I got for the Mice cleared the places of them completely."

FRESH SUPPLIES CAN ALWAYS BE HAD IN IRELAND FROM

**D. M. WATSON,**

*Pharmaceutical Chemist,*

61 South Gt. George's Street. DUBLIN.

Carefully Note Address.

SAFE

# Gardo

SURE

## AN INVALUABLE INSECTICIDE FOR GREENHOUSE and GARDEN

Gardo is effectual for all kinds of Aphis and other insect pests. It is non-poisonous, soluble in water, and, if used according to instructions, does not discolour or leave any visible film on the foliage or flowers.

Gardo is used by some of the best amateurs and largest members of the trade at home and abroad. Sold in Tins: 1/6, 1/6, 2/6 and 4/6 each. Drums: 1 gall. 7/6; 2 gall. 13/6; 5 gall. 30/6 each, by Seedsman, or sent direct from Ipswich on receipt of P.O.

Send a post card for full particulars and directions for use to

**THE CHEMICAL UNION, LIMITED, IPSWICH.**  
MANUFACTURERS OF CANARY GUANO.

# APRONATUS PONICUS.

What's this! A New Plant?  
No!

## A NEW APRON!

Designed by a Gardener for Gardeners.

LOOK AT THE PRICE.

In  
Dark Blue  
"Ponicus"  
Twill,  
**1/9**  
Postage 3d.  
extra.



Registered.

Or in Dark Blue  
"Ponicus"  
Serge of Ever-  
lasting Wear,  
**3/9**  
Postage 3d.  
extra.

From Belfast—ALEX. DICKSON & SONS, Ltd., 55 Royal Avenue.

From Dublin—W. DRUMMOND & SONS, Ltd., 58 Dawson Street.

ALEX. DICKSON & SONS, Ltd., 61 Dawson Street.

## Improved BEATRICE GREENHOUSE BOILERS.

Complete Apparatus from 75s.

A modern success. Great improvement over old-type boilers. The "Beatrice" makes greenhouse work a pleasure. One stoking for the day, one stoking for the night. Even draught, even temperature. Guaranteed double the sale of any other boiler. To intending purchasers

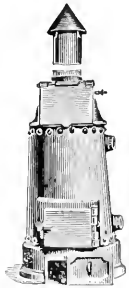
List Post Free.

Easy Payments Arranged.

**JAS. CHEW & CO.,**

Brookhouse Iron Works,

BLACKBURN, LANCs.



DOG KENNEL & POULTRY RAILING CORRUGATED SHEETS. TREE GUARDS. WIRE NETTING ETC.

**BAYLISS**  
**JONES & BAYLISS LTD**  
FOR ALL KINDS OF  
**IRON FENCING**  
VICTORIA WORKS  
**WOLVERHAMPTON**  
LONDON OFFICES & SHOWROOMS  
159 & 161 CANNON ST  
E. C.

GARDEN ARCHES FRUIT ESPALIER LIGHT MURDLES ETC.

## IMPORTANT TO GARDENERS and Fruit Growers.



# "Niquas"

(Registered),

The most successful Non-poisonous Insecticide  
of the day.

ITS ADVANTAGES ARE—

Certain death to all Insect Pests.  
No possible injury to the most delicate Plant, Flower or Foliage.  
It is by far the cheapest Insecticide known. One pint makes ten to twelve gallons for Thrip, Black and Green Fly, etc., whilst RED SPIDER, Mealy Bug, and Scale can be thoroughly eradicated by using "NIQUAS," double or three times the strength required for Fly.

**PRICES**—Pint, 1/-; Quart, 1/9; Half-Gallon, 3/-; Gallon, 5/-; Kegs, each Five Gallons, 22/6; Ten Gallons, 42/6.

Ask for Testimonials, of which some hundreds have been received.

**SPECIMEN TESTIMONIAL.**

From Mr. E. HUBBARD, Gardener to G. Hanbury, Esq., Blythwood, Burnham, Bucks, May 15th, 1906.

"I have been using your "NIQUAS" Insecticide for some years, and can with all confidence say it is the best I have ever used for Bug, Thrip, Red Spider, American Blight, and for all Insect Pests it has no equal. Also for the destruction of Maggots in Marguerites by dipping.

"I have recommended it to my friends generally."

## LETHORION

IMPROVED METAL

## VAPOUR CONE

FOR FUMIGATING.

At Greatly Reduced Prices.

INTRODUCED 1885.



(Registered Trade Mark.)

This well-known invention for the entire eradication of all pests infesting vegetation under glass is now manufactured in a more simple and reliable form. The small candle, which will be found packed with each cone, has only to be lighted, and placed on the ground in the centre of the Cone Frame, to produce immediate results. Nothing on the market can equal it for efficacy and cheapness.

Cone No. 3, for a well-secured house of cubic 2,000 to 2,500 feet, 1/- each. Cone No. 2, for a well-secured house of cubic 1,000 to 1,200 feet, 8d. each. Cone No. 1, Carbon, for frames of cubic 100 feet, 6d. each. Full directions accompany each Cone.

Ask for a List of Testimonials, of which some hundreds have been received from the leading gardeners in the Kingdom.

To be had from all Seedsmen  
and Florists.

MANUFACTURED BY

**CORRY & CO., LTD.,**

At their Bonded Chemical Works,

**SHAD THAMES, S.E.**

Office & Show Rooms:—13 & 15 Finsbury St., London, E.C.

**'EUREKA' WEED KILLER.**  
SAVES WEARY WEEDING.

**POWDER.**

1-	-	-	tin for 12 galls. solution
19	-	-	" 25 " "
6	-	-	" 100 " "

Free Tins and Cases.

**LIQUID. 1-50.**

$\frac{1}{2}$ gallon	-	2-	-	drum free
1 "	-	3-6	-	" 9d. extra
2 "	-	6-6	-	" 1/6 "
5 "	-	14-	-	" 2/6 "
10 "	-	25-6	-	" cask 5/ "

**'EUREKATINE'**—The successful fumigant.  
'EUREKA' Insecticide, Lawn Sand, Hellebore Powder, Bordeaux Mixture, Worm Killer, Hayward's Summer Shade, &c.  
SOLD BY AGENTS.  
Full list with booklet, "Chemistry in Garden and Greenhouse," sent post free by makers—  
**TOMLINSON & HAYWARD, Ltd., LINCOLN.**

Established 1896. Telephone 107 Y.  
Window Cleaners, etc., to Shops, Offices, Warehouses,  
Private Residences, etc., Dublin and County.

**'DISHER'S,'** House, Shop, and Office Cleaners,  
Limewashers, Whitewashers, and  
Glazing Contractors,

**6 Fleet Street, DUBLIN.**

DISHER'S Cleaning and Disinfecting "Composition will clean and disinfect your House, Shop, and Office throughout (without soap). 3s. 6d. Gallon Can delivered.

**SLUGS, WIREWORM &c**  
**DESTROYED & PLANTS INVIGORATED**

By a Dressing of "ALPHOL." A valuable Manure which Destroys Insect pests in the soil without injury to the plants. Try it now. 28 lbs. will dress 250 square yards, 7 lbs., 2/-; 14 lbs., 3/-; 56 lbs., 8/6; 1 cwt., 15/-. Every enquiry welcomed.

**BOUNDARY CHEMICAL CO. LTD. CRANMER ST. LIVERPOOL**

# ROWAN'S

**Turnips.**—Purple and Yellow Aberdeen, Pomeranian White Globe, Devonshire Greystone, Fosterton Hybrid, for present sowing.

Dutch Sowing Rape—Direct Imported.

**Cabbage Seed.**—Selected Nonpareil, Ellam's Early, Meins' No. 1, Flower of Spring, Market Garden.

*Catalogue Post Free.*

**M. ROWAN & Co., DUBLIN.**  
Seed, Bulb, Plant Merchants,  
51 & 52 CAPEL ST.,

TELEPHONE 672.

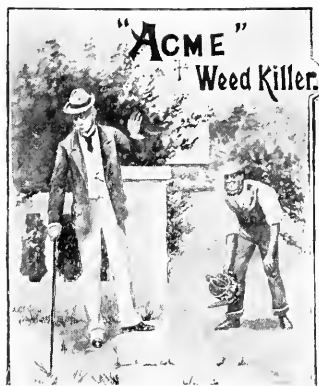
**WILMOT'S Galvanized Steel Garden Tubs**

Most useful thing in Garden at watering time. For Cottage Water Butts it is the best. As a Cheap Water Trough for Horses and Cattle. For Chaff, Bran, or Corn, nothing cheaper, when not used for Water. All for storing seeds and Potatoes, and a hundred other purposes.

Gals.	...	20	30	40	50	60	80	100	120
Price	...	7/6	8/6	10/6	12/6	14/-	16/6	19/6	21/6

Also our **RAIN WATER CISTERNS, 40 to 1,000 Gallons,**  
As used all over the Kingdom.

For Lists—**S. M. WILMOT & CO., St. Philip's, BRISTOL.**  
And of Ironmongers and Implement Agents.



## CLEAN PATHS. CLEAN PLANTS.

Used in the Crystal Palace Grounds, the Royal Horticultural Society's Gardens, Kew, and in the principal Gardens of the United Kingdom.

**STRENGTH, 1 in 25. 1 Gall. to 25 Galls. of Water.**  
1 Gall. 2s. 3d., tin free; 5 gall. 7s. 6d., drum, 2s. 6d.; 10 gall. 13s. 4d., drum, 5s.; 40 gall. 50s., cask, 5s. Carriage paid on 5 gallons and upwards.

**DOUBLE STRENGTH. 1 Gall. to 50 Galls. of Water.**  
 $\frac{1}{2}$  gall. 2s., tin free; 1 gall. 3s. 6d., drum, 6d.; 5 gall. 14s., drum, 2s. 6d.; 10 gall. 25s. 6d., drum, 5s.; 40 gall. 90s., cask, 5s. Carriage paid on 2 gallons and upwards. Empties allowed for when returned

## "ACME" POWDER WEED KILLER.

Sizes	Tins free	Per tin
No. 1	To make 25 gallons	1s. 9d.
No. 2	" 50 "	3s. 3d.
No. 3	" 100 "	6s. 0d.

Soluble in cold water. No. 3 carriage paid. Prices or larger quantities on application.

## COMPOUND QUASSIA EXTRACT INSECTICIDE.

Safest and best for all purposes. Certain death to Aphis, Red Spider, &c., &c. Sample pint sufficient for 10 galls., 1s. Post paid. Try it.

**ACME CHEMICAL CO., Ltd.,**  
**TONBRIDGE KENT & RIVER ST., BOLTON, LANCs.**

Agents: HAYES, CONYNGHAM & ROBINSON, LTD., Chemists, 12 Grafton Street, DUBLIN.

"Weeds, weeds everywhere! I wonder if that new gardener can suggest anything?"  
"Yes, sir. I'm just using the 'Acme' Weed Killer. The best in the world for killing weeds."



**Correspondence—continued.**

that were not Royal Sovereigns—a great loss, as I had to pull them all up. I confess I do not understand the necessity of doing this, Royal Sovereign being a strawberry now in cultivation for a great number of years, though I have a shrewd suspicion that the reason why nurserymen send you rubbish in preference to Royal Sovereign may arise from the fact that Royal Sovereign, being a great bearer, does not send out such a large quantity of good runners as inferior strawberries, which have to do something for a living; they cannot bear fruit, and so send out rubbish runners. “A word to the wise”—You can always tell Royal Sovereigns, as they have red stems to their leaves and red runners.

**ABOUT ROYAL SOVEREIGNS.**—What a fruit this is—given a fine season and favourable conditions, and this is, I think, the most delicious of all strawberries. I have before me now a short, commercial report of the strawberry season in England, and I note that they come to the same conclusion—that it is the most payable cropper, and is in greater favour than ever in all the large markets of the United Kingdom. Leader does well here, but in bad years is a very squashy fruit.

Royal Sovereign should certainly be planted not under two feet nine inches from row, twelve inches plant to plant, from second week in August to third week in September, taking out every other plant after second year. Some plant nine inches apart first year. Royal Sovereigns require this distance between rows, as under favourable circumstances this strawberry is a most vigorous grower, and by getting a good width you can cultivate properly and add short manure from time to time. March is the best month for this.

People in urban or country house gardens often keep strawberries in the same land for a number of years. This is the greatest mistake. Four years' crop is enough, and afterwards that land should have at least two years' rest. First year after the strawberries, potatoes

should be a good crop. The reason you cannot plant strawberries on the same land for a large number of years ought to be plain enough; but if it is not, consult gardening papers.

J. H. MILES.  
Greenmount, Ballydehob, Cork.

**Cheap Choice Carnations**

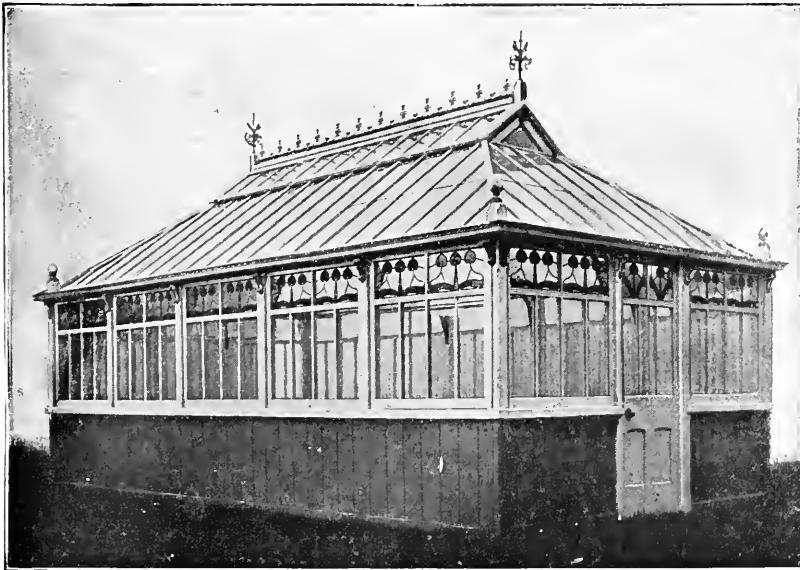
BORDERS, MALMAISONS,  
WINTER-FLOWERING.

A Large Selection of the Newest and Best  
Varieties in each section.

ILLUSTRATED CATALOGUE NOW READY.

*The Trade Supplied.*

Hayward Mathias, Medstead, Hants.



JAMES

**CRISPIN**

& SONS, F.R.H.S.

. Supply all classes of .

HORTICULTURAL

. BUILDINGS,

HEATING,

VENTILATING,

. and .

DOMESTIC SUPPLY

APPARATUS.

Please write for Catalogue Illustrating this and other Ornamental Conservatories.

Head Office : Nelson Street, BRISTOL.

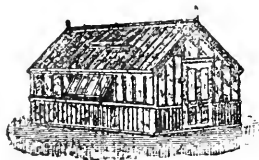
Registered **"SHEFA"** Trade Mark  
**CASH WITH ORDER.**

**ODOURLESS! CLEAN! SOLUBLE!**  
 An improvement on all other fertilizers for Garden and Greenhouse. Exceptionally High Analysis. Economical. Will appeal to Ladies. Brings Flowers, Fruit, and Vegetables to perfection. Commence using now. Tins, 16, 26 (size recommended), sufficient for 100 gallons, and 5-. Post free.

**VALROFF & CO.,**  
 Horsleydown, Tower Bridge Approach, LONDON.

**P. J. BYRNE,**

Horticultural Builder & General Contractor,  
 32 SHELBOURNE ROAD, DUBLIN.



Greenhouses and Conservatories built to order and erected in any part of Ireland at lowest prices.

Garden Frames and Lights very cheap.

ESTABLISHED 1830.

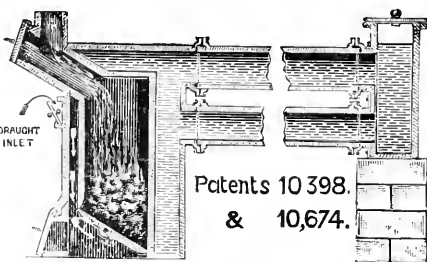
## The Boiler for Amateurs

**KINNELL'S** SILVER MEDAL **"HORSE-SHOE."**

Will burn from 10 to 20 hours. Over 20,000 in use.

Awarded 2 Gold Medals by Botanical Society.

CHEAPEST  
 BECAUSE.  
 BEST . .



Patents 10398.  
 & 10,674.

Illustrated Catalogue, Plans, and Estimates free on receipt of particulars to—

**CHAS. P. KINNELL & Co., Ltd.**  
 65 & 65a Southwark St., LONDON, S.E.

Vegetable, Flower, and Farm Seeds  
 From the Finest Stocks and Strains in Cultivation.  
*Catalogue Post Free.*

**Browne, Thompson & Co.,**  
 Seedsmen, CORK.

Telegrams—"THOMPSON, SEEDSMAN, CORK."

## BEDDING PLANTS NOW READY.

Properly transplanted and Hardy Stuff in Splendid Variety

Asters . . .	6d. per doz.
Stocks . . .	6d. „
Begonias . . .	2s. 6d. „
Calceolarias . . .	1s. 6d. „
Geranium . . .	2s. 6d. „
Lobelia . . .	2s. 6d. „

Nemesia, Pansies, Verbena, etc.

Collections of 150 Plants, 5s. 6d.

*Vegetable Plants from first-class stock Seeds.*

**The Ashbourne Coy.,**  
 Nurserymen,

15 Parliament Street & 51 Essex Street,  
 DUBLIN and DUNDRUM.

Telephone 98 x.

**CROSS'S "GARDEN FERTILISER,"**

GARDEN SEEDS,

Alex. CROSS & SONS, Ltd.,  
 Horticultural Specialists,  
 GLASGOW.

(Almost 100 YEARS Established.)

AND INSECTICIDES.

On Sale by ALL SEEDSMEN.

## Miscellaneous Section.

**T**O-DAY! AND FOR YEARS AND YEARS PAST the "XL=All" Specialities are and have been the best on the Market. Where is the gardener who does not pin his faith to one or the other of these celebrated Insecticides or Fertilisers? "XL=All" Fertiliser has pleased all who have used it this season. The sales of "XL=All" Fumigator prove that it is more popular than ever. "XL=All" Liquid Nicotine Insecticide is always spoken of by gardeners and growers as the most deadly to Mealy Bug, Thrip, &c. "XL=All" Winter Wash, for dormant trees, acts like magic, clearing the trees and bushes of all insects' eggs, moss, and fungoid growths. "XL=All" Lawn Sand, a weed eradicator and fertiliser for weedy and poor lawns. "XL=All" Weed Killer, used once a year; no weeds can live. Please ask your Nurseryman, Seedsman or Florist for a copy of my small pink list, giving particulars of these and many other "XL=ALL" Preparations, which can be obtained from the Horticultural Trade throughout the World.

### G. H. RICHARDS,

Manufacturer and Patentee,

234 Borough High Street, LONDON, S.E.

**L**ADY GARDENER.—A trained Studley College student, holding Royal Horticulture Society's First Class Certificate, at liberty in September. Moderate salary. Apply D, Office of this paper.

**I**F YOU HAVE A GLASS ROOF THAT LEAKS, a Conservatory to repair, or any kind of glazing work to be done, CARSON'S PLASTINE will save money, time, worry and annoyance consequent on the use of ordinary putty which cracks, crumbles, and decays. It saves the expense of constant renewals. Carson's Wood Preservative in green and brown, for Palings, Trellis Work, &c. The best paint for Greenhouses is "Vitrolite." Write for Catalogue. CARSON'S, 22 Bachelor's Walk, Dublin.

**T**HE JOYS OF GARDENING are realized by using "The Ashbourne" Garden Fertilizer. The most concentrated and Complete Manure for Horticultural purposes. One and a half times as powerful as the largely advertised Garden Fertilizers in commerce—therefore more economical. Prepared on the most up-to-date methods. Of general uniform quality, highest solubility, with constituents correctly balanced for promoting a healthy, vigorous plant growth—per stone, 2s. 6d.; per cwt., 14s. 6d. THE ASHBOURNE COMPANY, Nurserymen, Parliament Street, Dublin.

200 Highest Awards: Gold Medals from all the Principal Exhibitions.

### PURE ICHTHEMIC GUANO.

The Most Reliable, The Richest Food, and the Most Natural Fertiliser.

Supplied in Tins and Bags, 6d. to 20. Carriage paid on quantities of 28-lbs. and upwards.

### FAME'S FERTILISER.

Swift, Safe, and Sure.

Supplied in Tins and Bags, 6d. to 20. Carriage paid on quantities of 28-lbs. and upwards.

May be obtained from the principal Nurserymen, Seedsmen, Florists and Chemists, or DIRECT OF

The Sole Proprietors and Manufacturers,

**WM. COLCHESTER & CO.,**

IPSWICH, England.



### THE SCOTCH FLAME FLOWER

(*Tropaeolum Speciosum*.)

I can supply **extra strong** pots of this popular climber at 5/- per dozen, with directions for planting. **100** different named **Rockplants**, for any position my customer likes to name, for 28/6; 50 for 14/6; 25 for 7/9; from pots or ground. Send for List.

**Wood's Plant Club Label** is the best permanent metal label for Bulbs and Border Plants, Shrubs, &c.

**J. WOOD, Boston Spa., S.O., YORKSHIRE.**

**D**AFFODILS.—For planting now in the grass, have surplus stock of Sir Watkin, Empress, and leading varieties of Daffodils, Narcissi, &c. 15s. 1,000. 2s. 100. Apply—J. H. MILES, Greenmount, Ballydehob, Cork.

UNDER THE PATRONAGE OF THE DEPARTMENT OF AGRICULTURE, &c.

**P**ILTOWN AND DISTRICT FRUIT SHOW.—To be held in the City Hall, Waterford, 6th and 7th October, 1908. Open Classes. Liberal Prizes. For Schedules and Particulars apply to J. DEARNALEV, Piltown, Co. Kilkenny, Hon. Secretary.

**J. NESS & CO.,** 12 Sandside, Scarborough, Garden and Lawn Tennis Boundary Net Makers; also Rabbit, Stagk, Fishing, Cricket, and other Nets.

## For Choice Carnations

HAYWARD MATHIAS,

Medstead, Hants,

IS HEAD QUARTERS.

Don't take my word for it but try them, or read the Show Reports—then you will know!

*Illustrated Catalogue free.*

## PHILIP LE CORNU'S JERSEY

**FRUIT TREES, ROSE TREES, AND CARNATIONS** are properly packed free of cost and properly delivered, carriage paid, to Cork, Dublin, Belfast, or Waterford.

Vast quantities of strong, healthy, fibrous-rooted Apples, on the broad-leaved Paradise. Pears, Plums, Peaches, Grape Vines, and Strawberry Plants of superior quality, similar to those which have given so much satisfaction in various parts of Ireland for many years past.

### GORDONS A SPECIALITY.

Before ordering every reader of this paper should write for my **Illustrated Catalogue and Planters' Guide.**

Testimonial from HUM BLAND, Esq., Kilquade, Greystones, Ireland:—

"Your Fruit Trees have been eminently satisfactory—not one died. I hope to get more from you this Autumn."

**THE JERSEY NURSERIES' JERSEY.**

# DICKSON'S CELEBRATED BULBS

The pick of Holland. All first size and thoroughly matured. Free from disease. Send your orders early and secure the best Bulbs.

The following is merely a selection from our list, which we shall be pleased to mail to any intending purchaser, and we cordially invite our customers to **come and inspect our Stock.**

**BULBS FOR FORCING.**—**Single White Roman Hyacinths**, the largest size grown, 6 inches and over in circumference, per doz., 2s. 6d.; per 100, 18s. 6d. **Freesia refracta alba**, pure white and fragrant, per doz., 8d. and 10d.; per 100, 4s. 6d. and 5s. 6d. **Freesia Leichtlinii major**, per doz., 10d.; per 100, 5s. 6d. **Polyanthus Narcissus**, paper white grandiflorus, a great improvement on the old variety, specially selected Bulbs, per doz., 1s.; per 100, 6s. 6d. **Polyanthus Narcissus**, Double Roman, extra large, per doz., 9d.; per 100, 5s. **Allium Neapolitanum**, per doz., 4d.; per 100, 2s. 6d.

**ANEMONES.**—**St. Brigid**, a most lovely strain, of unexcelled quality, per doz., 10d.; per 100, 6s. **A. Fulgens**, brilliant scarlet, the starry windflower, per doz., 10d.; per 100, 6s. **Double Dutch**, mixed colours, 6d. per doz.; 3s. per 100. **Single Dutch**, mixed, per doz., 4d.; per 100, 2s.

**CHIONODOXA** ("Glory of the Snow").—**C. sardensis**, bright deep blue, a lovely gem. **C. lucilliae**, bright blue with white centre, per doz., 6d.; per 100, 3s. 3d.

**CROCUS.**—We offer the best and most distinct sorts in this popular Spring flower. **Golden King** and **Silver King**, each, per 100, 3s. **Caroline Chisholm** (white), **Albion** (deep violet blue), **Golden Yellow**, each, per 100, 2s. **Navy Blue** (new), **Skylark** (new), each, per 100, 3s. Mixed, white, blue, striped, or yellow, per 100, 1s. Special prices per 1,000.

**HYACINTHS.**—We offer 2 sets of 12 Bulbs each, containing, in our opinion, the cream of all the numerous varieties usually offered; they are all of the very highest merit, and suitable for general or exhibition purposes. **The "Royal" Twelve**, price, 7s. **The "Popular" Twelve**, 4s. The 2 collections, carriage free, for 11s. Twelve good varieties, named separately, for 3s. 6d. Bedding Hyacinths in separate colours *to name*; first quality, equal in every way to Bulbs sold by many firms as first size, 2s. 6d. per doz.; 18s. per 100. Mixed Bedding Hyacinths, all colours, per doz., 1s. 8d.; per 100, 12s.

**SPANISH IRIS** ("The Poor Man's Orchid").—Most effective flowers, easily grown, rich in colouring and very cheap. **Alex. Von. Humboldt** (porcelain blue), **Louise**, (lavender and white), per 100, 1s. 6d. **British Queen** (white), **King of the Blues** (deep blue), **Leander** (yellow), per 100, 2s. **Thunderbolt** (rich, bronze, and yellow), per 100, 3s. Mixed colours, per 100, 1s. 6d.; per 1,000, 12s. 6d. **Japanese Iris**, strong clumps, per doz., 2s.; per 100, 15s. **Iris stylosa**, a lovely winter flowering variety, per doz., 2s. **Iris reticulata**, per doz., 2s. 6d.

**NARCISSUS.**—Our stock of these is most extensive, and the Bulbs all extra large and strong. **Victoria**, **Emperor**, **Golden Spur**, per doz., 1s. 2d.; per 100, 8s. **Princeps**, **Maximus**, Forcing size, extra large, per 100, 4s.; per 1,000, 35s. **Sir Watkin**, per doz., 1s.; per 100, 7s. **Barrii** **Conspicuus**, per doz., 6d.; per 100, 3s. **Van Sion**, double extra large, per doz., 10d.; per 100, 6s. **Double Jonquils**, per doz., 8d.; per 100, 4s. 6d. **Single Jonquils Rugulosus**, per 100, 2s.

**SNOWDROPS.**—**Giant Single** (*Galanthus Elkesii*), immense roots, specially selected, per 100, 3s. 6d.; first size roots, 2s. per 100. **Double Snowdrops**, 3s. and 4s. per 100.

**TULIPS** (Single).—**Duc Van Thol**, scarlet, very early, good for forcing, per doz., 10d.; per 100, 6s. **Artus**, crimson scarlet, per doz., 9d.; per 100, 5s. 6d. **Princess Marianne**, splendid large white, per doz., 8d.; per 100, 4s. 6d. **Prince of Austria**, rich soft orange, per doz., 1s. 4d.; per 100, 9s. 6d. **Chrysolora**, pure yellow, per doz., 7d.; per 100, 4s. **Keizers Kroon**, red and yellow, per doz., 1s.; per 100, 7s. **Rainbow Mixture**, all colours, mixed by ourselves, per doz., 8d.; per 100, 4s.

**TULIPS.**—**Darwin** and **May Flowering**. A distinct and magnificent race of Tulips now brought to great perfection. Our collections, shown at the leading Shows in England for the past seven years, have in almost all instances received the highest awards. We strongly recommend our customers who have not grown these truly grand flowers to give them a trial this season. Descriptive list will be sent, post free, on application.

**NOTE.**—All Orders of 5s. value and over sent carriage or post free.

## ALEX. DICKSON & SONS, Ltd.

(DEPARTMENT B.)

(DEPARTMENT B.)

61 Dawson Street, DUBLIN

55 Royal Avenue, BELFAST



SIR J.W. MACKEY, LTD.

NOW READY—POST FREE

## “Bulbs for Garden and Greenhouse”

AN ILLUSTRATED DESCRIPTIVE CATALOGUE OF  
BULBS, DAFFODILS, TULIPS  
HYACINTHS, &c., &c.

Apply

**Sir James W. Mackey**  
SEEDSMEN Ltd.  
23 Upper Sackville Street  
DUBLIN

. . . M Y . . .

## CACTUS DAHLIAS

Which have won for me 17 Gold and Silver Medals all over Ireland, and have never been beaten at R.H.S.I. Shows, include the very finest varieties only, and are quite the best in Ireland.

Price from 3/6 Dozen upwards.

### EARLY AND LATE FLOWERING CHRYSANTHEMUMS

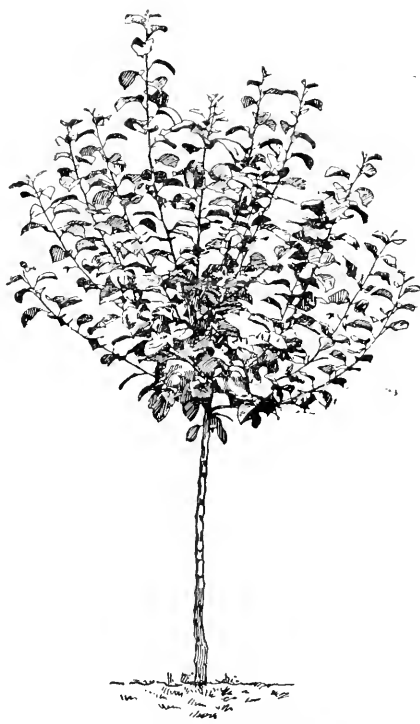
are also extra choice, and very select; I grow these by the thousand.

List Free.

**BEDDING PLANTS** in all usual varieties are done in very large quantities and splendid quality.

Lists now ready.

All Dahlias, Mums, and Bedding Plants free for Cash Orders value 3/6.



From a Photo of one of my 3-year-old trees growing in the Nursery. This is my type of  $\frac{1}{2}$ -Standard.

**JONES, F.R.H.S.,**

Forest Lodge Nurseries,  
GOWRAN.

Telegrams: “JONES, GOWRAN.”

Nurseries, 17 acres. Seed Dept.—68 High Street, KILKENNY.

# LISSADELL DAFFODILS

WERE AWARDED

**5 Medals in 1908.**

Special Gold R.H.S. Ireland.  
Silver Gilt - R.H.S. London.  
Silver Gilt - R.C.H.S. Edinburgh.  
Large Silver M.D.S. Birmingham.  
Gold Medal Shrewsbury.

FIRST-CLASS BULBS AT MODERATE PRICES.

Our Illustrated and Descriptive List contains such fine novelties as:—Acme, Judge Bird, Incognita, Mrs. Robt. Sydenham, Dorothy Kingmill, Orange King, Queen Maevæ, &c., &c.

ALSO A SELECTION OF THE BEST VARIETIES IN COMMERCE.

**J. A. COOPER** (Sir Josslyn Gore-Booth's).

LISSADELL, SLIGO.

## MERRYWEATHER'S DWARF POLYANTHA

### PHYLLIS.

PRICE 1/6 EACH.

### THE ROSE.

Every Garden must Possess Them.

The most Graceful Habit.  
The Brightest Carmine Pink.  
The most Perpetual Flowering.  
The best for Bedding.  
The best for Cutting.  
The best for Pot Culture.  
of any Baby Rambler yet sent out.

THE PEOPLE'S FLOWER.  
THE NATIONAL FLOWER.

**NON-POISONOUS**  
**ABOL** WHITE'S SUPERIOR.  
The Best Plant Wash for Garden and  
Kills Mildew. Greenhouse.

it absolutely **ABOLISHES**  
Green and Black Fly,  
American Blight,  
Caterpillars,  
and all kinds of **APHIS**

MANUFACTURED UNDER A NEW PATENT.

**TRY IT** and you will agree. "It acts like a charm," also "an excellent remedy for mildew," "a little goes a long way."  
½-Pt., 1/- Pt., 1/6 Qt., 2/6 ½-Gall., 4/- Gall., 7/6.

### "Abol" Syringe

**Best Sprayer.**

Does more and better work than other syringes double the size.  
TRY IT, and you will agree.



THE "ABOL" SYRINGE.

Prices: Syringes, 8/6 to 14/6. Postage, 4d.  
Bends, 1/6 extra.

Of all Seedsmen, Florists and Ironmongers, or on receipt of remittance from the

SOLE MANUFACTURERS—E. A. WHITE, Ltd.,  
Hop and Fruit Growers, Paddock Wood, KENT.

**Notice the following Wonderful Bargain:—**  
**COLLECTION "C," GARDEN ROSES.** The finest selection of **25 Garden Roses** in dwarf plants possible for **13/6** (with Acme Labels, **16/-**), carriage and packing free for cash with order.

**350,000 FRUIT TREES** of all kinds to select from.

A Grand Stock of Shrubs and Ornamental Trees.

Herbaceous Plants in great variety.

Send for Catalogue No. 21, full of interesting information and cheap prices, post free on application to

**MESSRS. H. MERRYWEATHER & SONS, LTD.,** (Dept. T.) **SOUTHWELL, NOTTS**  
Garden Specialists,

# FRUIT TREES in all forms

Many thousands are being supplied yearly to Customers in all parts of Ireland, and are giving entire satisfaction . . .



Silver Medal awarded by the Royal Horticultural Society of Ireland for Collection of Fruit at Dublin Show, 1907 . . .



Illustrated Catalogue and Cultural Instructions sent free on application. . .



## CORDONS

### A SPECIALITY

Very large stock of . . .  
BUSHES, PYRAMIDS,  
. . . and . . .  
TRAINED TREES, on  
Specially Selected Fruit-  
ing Stocks. . . . .

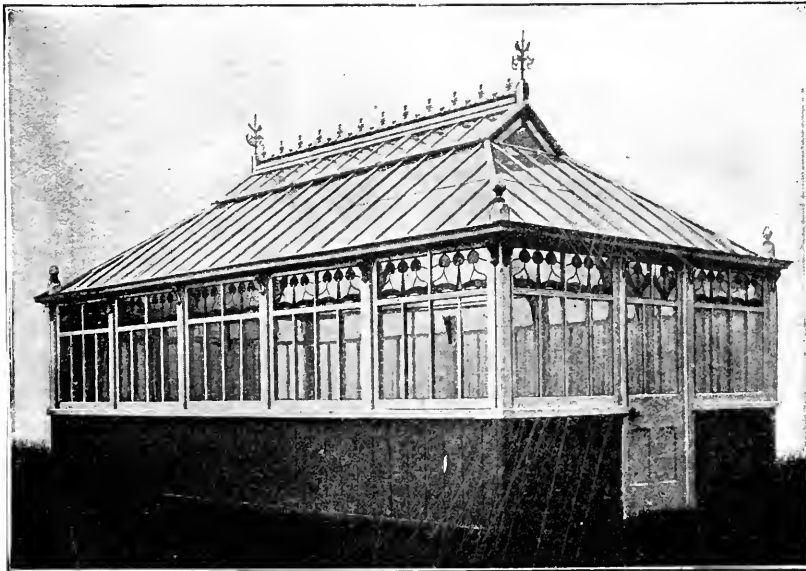


250,000 Trees to select  
from.



Customers ordering . .  
through the post may  
rely on receiving as good  
trees as those personally  
chosen. . . . .

**W. SEABROOK & SONS,** The Nurseries, **Chelmsford**



## JAMES

# CRISPIN

**& SONS, F.R.H.S.**

. Supply all classes of  
HORTICULTURAL  
. BUILDINGS,  
HEATING,  
VENTILATING,  
. and .  
DOMESTIC SUPPLY  
APPARATUS.

Please write for Catalogue Illustrating this and other Ornamental Conservatories.

**Head Office: Nelson Street, BRISTOL.**



# ANEMONE ST. BRIGID

## M<sup>C</sup>GREDY'S GIANT PÆONY FLOWERED STRAIN



**W**E believe our strain of these beautiful Anemones is, without exception, the finest and most advanced selection in existence. For many years we have devoted special care to their improvement. Practically every flower is double, and the range of colour, especially in the Crimson, Scarlet, and Pink shades, has not been attained by any other grower, rivalling in form, size, and colour the Japanese Pæonies.

**BULBS.** Large selected Roots, magnificent double flowers 10d. dozen; 6s. 100

**SEED.** For present sowing, saved from double flowers ... 3d. and 6d. packet

*Bulbs and Seed post free*

Samuel M<sup>C</sup>Gredy & Son, Nurserymen and Seed Merchants, Portadown

# EARLY ROMAN HYACINTHS



Early White Roman Hyacinth

	Per 100	Per doz.
Extra Large Bulbs	15/6	2/3
Selected Bulbs	13/6	1/9
Straw Coloured		
Italian	18/-	2/6

DAFFODILS, HYACINTHS, &c.

LISTS FREE



## Edmondson Bros.

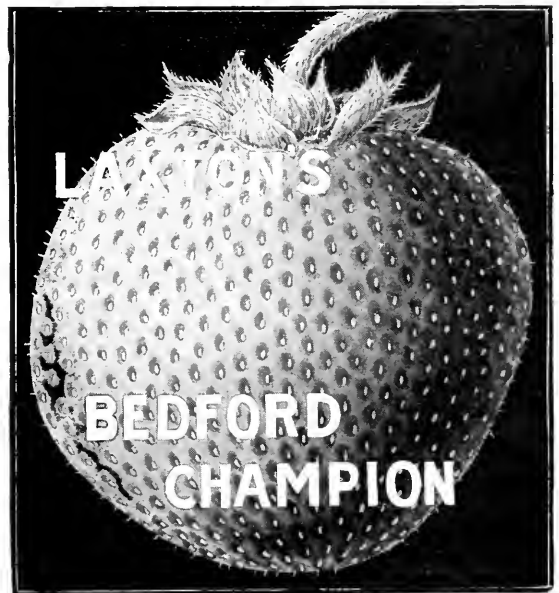
BULB MERCHANTS

10 Dame Street, DUBLIN

## LAXTON'S New Strawberries for 1908.

INCLUDING ALL THE BEST STANDARD  
VARIETIES FOR MARKET PURPOSES  
— AND FOR PRIVATE GARDENS. —

THE LARGEST CULTURES IN EUROPE,  
GROWN SPECIALLY FOR RUNNERS.



*A full Catalogue and Price List will be sent on application.*

# LAXTON BROTHERS, BEDFORD.

## September Work.

**T**HIS is an excellent month for garden work, especially for alterations and additions to the herbaceous garden, as all classes of herbaceous perennials, rock-plants, &c., will now move extremely well and become established before the winter, thus ensuring the best results for the following year. Reference has been made in this column to the nurseries of Messrs. WATSON & SONS, at Clontarf, Dublin, where all sorts of hardy perennials and garden flowers for present planting are thoroughly well done. People remark on the decent sized pieces of herbaceous and rock-plants sent out by this firm at moderate prices, and their catalogues may be had free by all readers of IRISH GARDENING.

Carnations should be ready to plant in their flowering beds at the end of the month or in October, as soon as the layers are sufficiently rooted, and Messrs. WATSON are well known in connection with these flowers, which have brought them numerous Gold and Silver Medals and prizes throughout the United Kingdom.

Beautiful collections of up-to-date Delphiniums, Phloxes, Pyrethrums, Peonies, and Miscellaneous Herbaceous Perennials, have been seen in bloom at Clontarf during their respective flowering seasons, and all may now be planted to advantage. It should be noted by those who require cut blooms or floral designs, wreaths, bouquets, &c., during the winter season, that Messrs. WATSON supply everything in the florists' line from their city floral branch, 18 Nassau Street, Dublin, and designs exhibited by the firm at many of the flower shows throughout the provinces were greatly admired by crowds of visitors.

## Royal Horticultural Society of Ireland.

**I**N conjunction with the autumn show of the Royal Horticultural Society the National Sweet Pea Society held a provincial show on August 5th in the Royal University Buildings, Dublin, kindly granted by the Senate. As the show is so long past and was very fully reported in the daily Press I do not intend to write a prize list, but rather pen a few notes on what I thought some of the best exhibits. The first 46 classes in the schedule were for sweet peas; and as there were good entries in most of the classes, and the best positions in the halls allotted to the sweet peas, they made a glorious sight, being in general beautifully staged and the flowers of grand colour. The Dickson and Edmondson Cups were won by Mr. Cowdy, Loughgall, with very fine flowers on grand stems. A few of his best varieties were Prince of the Asturias, Menie Christie, Helen Lewis, Mrs. Hardcastle Sykes and George Herbert. In the Dickson Cup he was closely followed for second place by Mr. King (gardener to Lord Dunleath), while in the Edmondson Cup Mr. Mitchison (gardener to Col. Hon. C. H. Crichton) was a close second. A beautiful bunch in this stand of another Countess Spencer sport, named Rose Spencer, was probably the finest vase of sweet peas in the show. For six bunches of sweet peas, Mr. Davis (gardener to Mrs. Goodbody) won first prize, Mr. H. J. R. Digges being a good second, their best varieties being Helen Lewis, Countess Spencer and Mrs. Hardcastle Sykes. The Edwards' Challenge Trophy was easily won by Mr.

SAFE

# Gardo

SURE

## AN INVALUABLE INSECTICIDE FOR GREENHOUSE and GARDEN.

Gardo is effectual for all kinds of Aphis and other insect pests. It is non-poisonous, soluble in water, and, if used according to instructions, does not discolour or leave any visible film on the foliage or flowers.

Gardo is used by some of the best amateurs and largest members of the trade at home and abroad. Sold in Tins: 1/-, 1/6, 2/6 and 4/- each. Drums: 1 gall. 7/6; 2 gall. 13/6; 5 gall. 30/- each, by Seedsmen, or sent direct from Ipswich on receipt of P.O.

*Send a post card for full particulars and directions for use to*

**THE CHEMICAL UNION, LIMITED, IPSWICH.**  
MANUFACTURERS OF CANARY GUANO.

# RATS IN GARDENS

Rats and Mice do an enormous amount of damage in Gardens, Greenhouses, Vineries, &c. "**Liverpool**" Virus has been used with conspicuous success in banishing these troublesome pests. The Virus is absolutely non-poisonous, and may therefore be safely used where there are Dogs, Cats, Fowl, Game, &c.

### FOR RATS.

ISLAND OF HEIM, April 7th, 1907.

"I am pleased to tell you that the Virus has proved most effective, and dead rats have been found at the further extremity of the island some three quarters of a mile away. I keep large quantities of old English game fowl, pheasants, emus and kangaroos in the coverts, so cannot use the ordinary poison. LEICESTER GOW."

<b>"Liverpool" Virus for Rats</b> ...	<b>2 6</b>	} per tube, post free, for cash with order.
Large Tubes, containing 6 times amount of Virus	<b>8/-</b>	
<b>"Liverpool" Virus for Mice</b> ...	<b>1 6</b>	

The Rat Virus also affects mice. Full directions are supplied with each tube.

N.B.—If Rats are numerous the LARGE tube should be employed.

### FOR MICE.

The **Steward** of a **Nobleman** writes: "The last tube I got for the Mice cleared the places of them completely."

FRESH SUPPLIES CAN ALWAYS BE HAD IN IRELAND FROM

## D. M. WATSON,

*Pharmaceutical Chemist,*

61 South Gt. George's Street, DUBLIN.

Carefully Note Address.

## APRONATUS PONICUS.

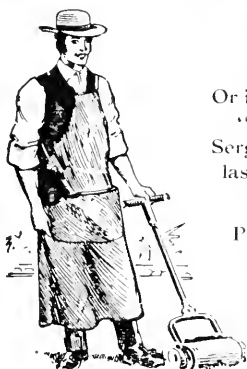
What's this! A New Plant?  
No!

# A NEW APRON!

Designed by a Gardener for Gardeners.

LOOK AT THE PRICE.

In  
Dark Blue  
"Ponicus"  
Twill,  
**1/9**  
Postage 3d.  
extra.



Registered.

Or in Dark Blue  
"Ponicus"  
Serge of Ever-  
lasting Wear,  
**3/9**  
Postage 3d.  
extra.

From Belfast—ALEX. DICKSON & SONS, Ltd., 55 Royal Avenue.

From Dublin—W. DRUMMOND & SONS, Ltd., 58 Dawson Street.

ALEX. DICKSON & SONS, Ltd., 61 Dawson Street.

## ASHBOURNE CO.'S FOR BULBS EARLY PLANTING

Roman Hyacinths, 1st size, 2/- per doz.

Roman Hyacinths, 2nd size, 1/9 per doz.

Freesias, Refracta Alba, 1st size, 9d. per  
doz.; 5/6 per 100.

Freesias, Refracta Alba, 2nd size, 8d. per  
doz.; 4/6 per 100.

Early Tulips, named varieties, 8d. to  
1/4 per doz.

Narcissus, 4d. to 1/- per doz.

Please write for our Abridged List

**ASHBOURNE COMPANY**  
15 Parliament St. and 51 Essex St.  
DUBLIN

Telegrams:  
"Veitch, Chelsea."



Telephone:  
1642 Western.

BY APPOINTMENT.

## STRAWBERRIES.

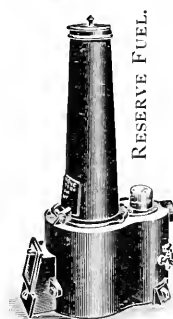
### James Veitch & Sons, Ltd.

beg to intimate that they can now  
supply orders for all the leading kinds  
of Strawberries, either in small pots or  
prepared runners. Messrs. J. V.  
& Sons, Ltd., will also be pleased  
to forward, post free, their FRUIT  
CATALOGUE for the present season.

**ROYAL EXOTIC NURSERY,**  
CHELSEA, LONDON.

## PATENT Greenhouse Boilers.

**BOILERS**  
only, £2 5s.  
and upwards.



Pipes extra.

NO BRICKWORK. TENANTS' FIXTURE.  
EVEN TEMPERATURE. NO TROUBLE.

**Guaranteed Minimum  
Burning, 12 Hours.**

Thousands in use giving entire satisfaction.

*Catalogues and Estimates Free.*

**12-HOURS' STOVE SYNDICATE, LTD.,**  
66 VICTORIA ST., LONDON, S.W.

T. Stevenson (gardener to A. Mocatta, Esq., Surrey), and this grower also won most of the first prizes in the classes for single bunches, in which there were large entries; but the flowers in these classes often lacked size and colour, though those for a bunch of white and also for a bunch of Sutton's Queen were grand. The Special Audit Class (15 bunches) was well won by Mr. King staging most of the newer varieties where possible. Messrs. H. Wright, H. W. Mackereth and C. W. Breamore gave each valuable prizes for six bunches, and these were won respectively by Dr. O'D. Browne, Naas (gardener, Mr. F. Milne), Mr. M. Moran, Naas, and Mr. W. Mitchison, the varieties chiefly shown being Helen Lewis, Mrs. H. Sykes, Mrs. H. Bell, John Ingman or George Herbert, Primrose and White Spencer, and Elsie Herbert.

In non-competitive trade exhibits Messrs. A. Dickson & Sons, Ltd., were awarded a gold medal. The King, King Edward Spencer, Dudley Lees, Audrey Crier, and Rose Spencer (a variety much like M. A. Linzie) were some of the best among a large number shown. Mr. R. Bolton, Cranforth, had a beautiful exhibit on two stands, and had hard lines not to get a gold medal, his Nancy Perkins, Tom Bolton. Black Bird, Constance Oliver, and St. George being grand in a very large collection. Mr. C. W. Breamore and Messrs. Hogg & Robertson staged all the best of standard varieties in grand condition.

Roses were splendidly shown by Messrs. H. Dickson, Belfast, and A. Dickson & Sons, Newtownards, the former winning for 72 roses and for 12 new roses, and A. Dickson & Sons winning for 24 Tea Roses. Hugh Dickson, Ben Cant, Mdme E. Verdier, U. Brunner, Mildred Grant, Frau Karl Druschki, and C. W. Cowan were extra fine, while of the new roses, Joseph Hill,

J. B. Clarke, M. H. Walsh, The Lyon Rose, and W. E. Lippiat were good. Amateurs' roses for the Ardilaun Cup were above the average for the season, and the two northern growers, Messrs. W. H. Calvert and J. S. Larnour, were first and second, many of the blooms staged by them equalling those in the nurserymen's stands; and as these gentlemen only grow a small number of trees their culture must be of the best. Dr. Browne, Naas, again won the class for 18 Tea Roses, and Mr. R. J. Maunsell, Celbridge (gardener, Mr. Aherne), that for Hybrid Teas, but many of the blooms were weather stained.

Cactus dahlias were well shown in a couple of stands. Mr. R. H. Stubber and Mr. C. Doyne having grand flowers of the choicest varieties in class for 24 blooms on stands; while Mr. W. Ross was a grand first for 6 bunches in vases, showing how fine these flowers are for decoration. The two classes for double tuberous begonias were the most attractive in the show, the flowers being excellent and well staged by the several exhibitors, a few of the finest flowers being Mrs. Castle, Mrs. Pope, Princess of Wales, Queen Alexandra, Sylvia, Duke of Fife, Sir T. Lipton, Golden Eagle, and Mont Blanc.

The 12 vases of China asters shown by Mr. H. J. B. Clements (gardener, Mr. Kirk) were superb, every bloom being perfect. Hardy cut flowers, annuals excluded, were good, and competition keen, Captain L. Riall and Lord Plunket having excellent collections, a few of the best being Chrysanthemum King Edward VII., phlox in variety, Romneya Coulteri, carnations, roses, lilies, montbretia, gladioli, and good varieties of perennial asters.

Annuals in twelve bunches were grand, and beautifully staged was the 1st prize lot of Dr. O'D. Browne's,

# CROSS'S "GARDEN FERTILISER,"

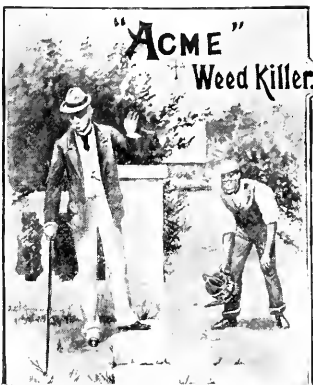
## GARDEN SEEDS,

## AND INSECTICIDES.

Alex. CROSS & SONS, Ltd.,  
Horticultural Specialists,  
GLASGOW.

(Almost 100 YEARS Established.)

On Sale by ALL SEEDSMEN.



"Weeds, weeds everywhere! I wonder if that new gardener can suggest anything?"  
"Yes, sir. I'm just using the 'Acme' Weed Killer. The best in the world for killing weeds."

### CLEAN PATHS. CLEAN PLANTS.

Used in the Crystal Palace Grounds, the Royal Horticultural Society's Gardens, Kew, and in the principal Gardens of the United Kingdom.

**STRENGTH, 1 in 25. 1 Gall. to 25 Gallons of Water.**  
1 Gall. 2s. 3d., tin free; 5 gall. 7s. 6d., drum, 2s. 6d.; 10 gall. 13s. 4d., drum, 5s.; 40 gall. 50s., cask 5s. Carriage paid on 5 gallons and upwards.

**DOUBLE STRENGTH. 1 Gall. to 50 Gallons of Water.**  
½ gall. 2s., tin free; 1 gall. 3s. 6d., drum, 9d.; 5 gall. 14s., drum, 2s. 6d.; 10 gall. 25s. 6d., drum, 5s., 40 gall. 90s., cask, 5s. Carriage paid on 2 gallons and upwards. Empties allowed for when returned.

### "ACME" POWDER WEED KILLER.

Sizes	Tins free	Per tin
No. 1 ..	To make 25 gallons ..	1s. 9d.
No. 2 ..	" 50 " ..	3s. 3d.
No. 3 ..	" 100 " ..	6s. 0d.

Soluble in cold water. No. 3 carriage paid. Prices or larger quantities on application.

### COMPOUND QUASSIA EXTRACT INSECTICIDE.

Safest and best for all purposes. Certain death to Aphids, Red Spider, &c., &c. Sample pint sufficient for 10 galls., 1s. Post paid. Try it.

ACME CHEMICAL CO., Ltd.,  
TONBRIDGE, KENT & RIVER ST., BOLTON, LANCs.

Agents: HAYES, CONYNGHAM & ROBINSON, LTD., Chemists, 12 Grafton Street, DUBLIN.

asters, sweet pea, salpiglossis, coreopsis bi-color, malope, and nigella Miss Jekyll var. extra fine where all were good. Pelargoniums, double and single, were well shown by Mr. E. Bewley, while the less said over the classes for carnations the better, the only really good lot staged being disqualified on account of showing a seedling variety, with Malmaison blood, in class for border kinds, this decision of the judges being severely commented on by visitors, and yet in one of the rose classes these same judges were taken to task for not disqualifying a 1st prize winner, so that the lot of a judge is not a happy one or one to be envied.

Fruit was largely and well shown, the grapes being grandly coloured, White Muscats, shown by Lady E. Bury (gardener, Mr. Roberts), Black Hamburg from Mr. Westby, and Madresfield Court from Mr. E. Bewley being perfect in size of berry, symmetry of bunch and finish.

Non-competitive exhibits were numerous and of good quality, and medals were freely given. Messrs. W. Drummond and Sons, Ltd., had one of the finest stands in the show, hardy flowers and grand plants attracting visitors all the evening; some rare shrubs, *Abies pungens kosteri*, *Abies concolor waltzi*, were of a lovely colour, and equally attractive being *Cupressus arizonica*, awarded a gold medal. A. Dickson and Sons were also awarded a gold medal for hardy flowers, the phloxes, veronicas, chrysanthemums, spiraeas, and pentstemons being very fine. Mrs. Keith, Cabinteely, was awarded a gold medal for gesnerias, and Mrs. Goodbody, Obelisk Park, a like award for anthuriums. Silver medals were awarded to Messrs. Chas. Ramsay, W. Watson and Sons, Browett and Co., Dicksons (Chester), Jas. Carter and Co. (London), Hogg and Robertson, and Pennick and Co.

W. T.

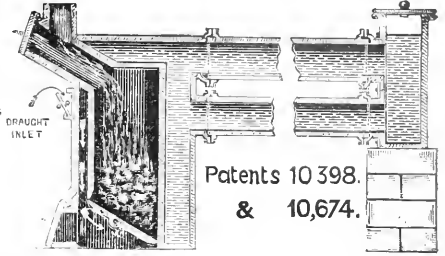
## The Boiler for Amateurs

### KINNELL'S SILVER MEDAL "HORSE-SHOE."

Will burn from 10 to 20 hours. Over 20,000 in use.

Awarded 2 Gold Medals by Botanical Society.

CHEAPEST BECAUSE. BEST . .



Patents 10 398. & 10,674.

Illustrated Catalogue, Plans, and Estimates free on receipt of particulars to—

**CHAS. P. KINNELL & Co., Ltd.**

65 & 65a Southwark St., LONDON, S.E.

**SLUGS, WIREWORM & DESTROYED & PLANTS INVIGORATED**

By a Dressing of "ALPHOL." A valuable Manure which Destroys Insect Pests in the soil without injury to the plants. Try it now. 28 lbs. will dress 250 square yards. 7 lbs., 2/-; 14 lbs., 3/-; 56 lbs., 8/6; 1 cwt., 15/-. Every enquiry welcomed.

**BOUNDARY CHEMICAL CO. LTD. CRANMER ST. LIVERPOOL**

## 'EUREKA' WEED KILLER. SAVES WEARY WEEDING.



**POWDER.**  
1 1/2 - tin for 12 galls. solution  
1 1/2 - " " 25 " "  
6 - " " 100 " "

Free Tins and Cases.

**LIQUID. 1-50.**  
1/2 gallon - 2 - drum free  
1 " - 3 6 - " 9d. extra  
2 " - 6 6 - " 1 6 "  
5 " - 14 - " 2 6 "  
10 " - 25 6 - cask 5 " "

'EUREKATINE'—The successful fumigant.

'EUREKA' Insecticide, Lawn Sand, Hellebore Powder, Bordeaux Mixture, Worm Killer, Hayward's Summer Shade, &c.

SOLD BY AGENTS.

Full list with booklet, "Chemistry in Garden and Greenhouse," sent post free by makers.

**TOMLINSON & HAYWARD, Ltd., LINCOLN.**

## Improved BEATRICE GREENHOUSE BOILERS.

Complete Apparatus from 75s.

A modern success. Great improvement over old-type boilers. The "Beatrice" makes greenhouse work a pleasure. One stoking for the day, one stoking for the night. Even draught, even temperature. Guaranteed double the sale of any other boiler. To intending purchasers

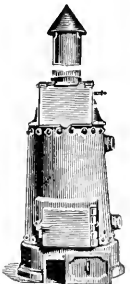
List Post Free.

Easy Payments Arranged.

**JAS. CHEW & CO.,**

Brookhouse Iron Works,

**BLACKBURN, LANCs.**



BEST . .

**HOUSE**

And . .

**COALS**

**COKE FOR HORTICULTURAL PURPOSES**

Special attention paid to Quality,  
Price and Prompt Delivery .

**Flower & McDonald**

DIRECT COAL IMPORTERS  
COKE AND CHARCOAL MERCHANTS

14 D'Olier Street, DUBLIN

Telegraphic Address: "DONALD, DUBLIN."

Telephone No. 846

Registered **"SHEFA"** Trade Mark  
**CASH WITH ORDER.**

**ODOURLESS! CLEAN! SOLUBLE!**  
 An improvement on all other fertilizers for Garden and Greenhouse. Exceptionally High Analysis. Economical. Will appeal to Ladies. Brings Flowers, Fruit, and Vegetables to perfection. Commence using now. Tins, **16, 26** (size recommended), sufficient for 100 gallons, and **5** - Post free.

**VALROFF & CO.,**  
 Horsleydown, Tower Bridge Approach, LONDON.

## P. J. BYRNE,

Horticultural Builder & General Contractor,  
 32 SHELBOURNE ROAD, DUBLIN.



Greenhouses and Conservatories built to order and erected in any part of Ireland at lowest prices.

Garden Frames and Lights very cheap.

ESTABLISHED 1830.



Established 1896. Telephone 107 Y.  
 Window Cleaners, etc., to Shops, Offices, Warehouses,  
 Private Residences, etc., Dublin and County.

**'DISHER'S,'** House, Shop, and Office Cleaners,  
 Linewashers, Whiteneis, and  
 Glazing Contractors,

**6 Fleet Street, DUBLIN.**

DISHER'S Cleaning and Disinfecting Composition will clean and disinfect your House, Shop, and Office throughout (without soap). **3s. 6d.** Gallon Can delivered.

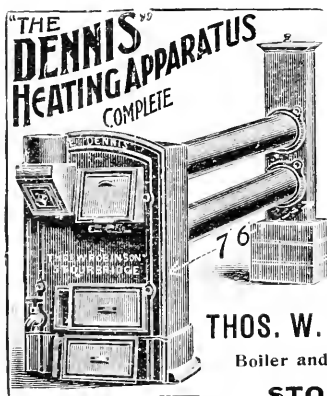
Vegetable, Flower, and Farm Seeds  
 From the Finest Stocks and Strains in Cultivation.

*Catalogue Post Free.*

**Browne, Thompson & Co.,**

Seedsman, CORK.

Telegrams—"THOMPSON, SEEDSMAN, CORK."



This "Apparatus" has obtained repute both in Large and Small Gardens.

Write for Discounts and Price Lists.

Manufacturers of  
 PLAIN AND ORNAMENTAL  
 SFOUTING,  
 HOT WATER PIPES,  
 BOILERS, PUMPS, LAMP  
 POSTS, VENTILATING  
 GEAR.

**THOS. W. ROBINSON, LTD.,**

Boiler and Pipe Manufacturers,

**STOURBRIDGE.**

**WEEDS DESTROYED GRASS INVIGORATED**  
 ON LAWN, GOLF, TENNIS COURTS, BY BOWLING GREENS &  
**"CLIMAX" LAWN SAND**  
 THE BEST DRESSING FOR WEEDY OR IMPOVERISHED LAWNS.  
 TRY IT NOW.  
 Sample tins, 1s., 2s., and 3s. 6d.; or 25 lb., to dress 100 square yards, 6s., carriage paid.  
 Write for our Catalogue of Garden Helps.  
**BOUNDARY CHEMICAL CO. LTD. CRANMER ST. LIVERPOOL**



### WILMOT'S Galvanized Steel Garden Tubs

Most useful thing in Garden at watering time. For Cottage Water Butts it is the best. As a Cheap Water Trough for Horses and Cattle. For Chaff, Bran, or Corn, nothing cheaper, when not used for Water. All for storing Seeds and Potatoes, and a hundred other purposes.

Gals.	20	30	40	50	60	80	100	120
Price	7 6	8 6	10 -	12 6	14 -	16 6	19 6	21 6

Also our **RAIN WATER CISTERNS, 40 to 1,000 Gallons,**  
 As used all over the Kingdom.

For Lists—**S. M. WILMOT & CO., St. Philip's, BRISTOL.**  
 And of Ironmongers and Implement Agents.



## Miscellaneous Section

**TO-DAY! AND FOR YEARS AND YEARS PAST** the "**XL=All**" Specialities are and have been the best on the Market. Where is the gardener who does not pin his faith to one or the other of these celebrated Insecticides or Fertilisers? "**XL=All**" Fertiliser has pleased all who have used it this season. The sales of "**XL=All**" **Fumigator** prove that it is more popular than ever. "**XL=All**" **Liquid Nicotine Insecticide** is always spoken of by gardeners and growers as the most deadly to Mealy Bug, Thrip, &c. "**XL=All**" **Winter Wash**, for dormant trees, acts like magic, clearing the trees and bushes of all insects' eggs, moss, and fungoid growths. "**XL=All**" **Lawn Sand**, a weed eradicator and fertiliser for weedy and poor lawns. "**XL=All**" **Weed Killer**, used once a year; no weeds can live. Please ask your Nurseryman, Seedsman or Florist for a copy of my small pink list, giving particulars of these and many other "**XL=ALL**" Preparations, which can be obtained from the Horticultural Trade throughout the World.

**G. H. RICHARDS,**

MANUFACTURER AND PATENTEE,

234 Borough High Street, LONDON, S.E.

### THE SCOTCH FLAME FLOWER

(*Tropæolum Speciosum*.)

I can supply **extra strong** pots of this popular climber at 5/- per dozen, with directions for planting, **100** different named **Rockplants**, for any position my customer likes to name, for **28/6**; **50** for **14/6**; **25** for **7/9**; from pots or ground. Send for List.

**Wood's Plant Club Label** is the best permanent metal label for Bulbs and Border Plants, Shrubs, &c.

**J. WOOD, Boston Spa., S.O., YORKSHIRE.**

**IF YOU HAVE A GLASS ROOF THAT LEAKS,** a Conservatory to repair, or any kind of glazing work to be done, **CARSON'S PLASTINE** will save money, time, worry and annoyance consequent on the use of ordinary putty which cracks, crumbles, and decays. It saves the expense of constant renewals. Carson's Wood Preservative in green and brown, for Palings, Trellis Work, &c. The best paint for Greenhouses is "**Vitrolite**." Write for Catalogue. **CARSONS, 22 Bachelor's Walk, Dublin.**

## PHILIP LE CORNU'S JERSEY

### FRUIT TREES, ROSE TREES, AND CARNATIONS

are properly packed free of cost and properly delivered, carriage paid, to Cork, Dublin, Belfast, or Waterford.

Vast quantities of strong, healthy, fibrously-rooted Apples, on the broad-leaved Paradise. Pears, Plums, Peaches, Grape Vines, and Strawberry Plants of superior quality, similar to those which have given so much satisfaction in various parts of Ireland for many years past.

### CORDONS A SPECIALITY.

Before ordering every reader of this paper should write for my **Illustrated Catalogue and Planters' Guide.**

Testimonial from **HUM BLAND, ESQ., Kilquade, Greystones, Ireland** :-

"Your Fruit Trees have been eminently satisfactory—not one died. I hope to get more from you this Autumn."

**THE JERSEY NURSERIES JERSEY.**

## LISSADELL

### Herbaceous and Alpine Plants

In choice collections. Exceptional value

#### ALPINE PLANTS—

12 distinct kinds, named, 2/6, 24, 4/6

#### HERBACEOUS PLANTS—

12 distinct kinds, named, 2/6, 24, 4/6

#### PHLOXES—

12 distinct kinds, named, 2/6, 24, 4/6

#### ASTERS—

12 distinct kinds, named, 2/6, 24, 4/6

#### DELPHINIUMS—

Assorted colours or mixed, 2/6 per doz.

Orders value £1 carriage paid

**J. A. COOPER,** Lissadell SLIGO

**J. NESS & CO.,** 12 Sandside, Scarboro', Garden and Lawn Tennis Boundary Net Makers; also Rabbit, Stagk, Fishing, Cricket, and other Nets.

Genuine Cheap Offer of

## ORNAMENTAL SHRUBS.

6 Veronicas in six of the best varieties for	s. d.
6 Escallonias in six of the best varieties, including Langleyensis	4 6
6 Shubby Spiræas in six of the best varieties	4 6
6 Cotoneasters	4 6
6 Cupressus	5 0
6 Olearias	5 0
6 Bamboos in three	5 0
6 Conifers, including Retinosporas, Cupressus, Cryptomeria, Thuya, Cedar and Wellingtonia	6 0

Three of any of the above lots for half price.

100 Choice Shrubs in 100 good varieties, my selection, fit for immediate permanent planting, correctly named and carefully packed for £3 15s.

Those thinking of planting shrubs should avail themselves of this offer. Nothing sent out but **GOOD PLANTS** of **GOOD VARIETY** with **GOOD ROOTS**. Special collections made up, suitable for any site or position.

See my advertisement in last month's "*Irish Gardening*."

WRITE FOR CATALOGUE.

Correspondence invited.

**T. J. Ryan,** DONARD NURSERY, Newcastle, Co. Down.

## Best Quality Bulbs . . . Best Hardy Perennials.

Our Bulbs are First Class Selected Stuff and Extraordinary Value for Money. Give us a Trial Order. You will be surprised at the Value. Our Plants are strong Transplanted Stuff from Northern Climate, which do well anywhere.

### BULBS.

50 Double daffodils	1/-	8 Hyacinths, red,	
50 Double daffodils,		white or blue -	1/-
extra large -	2/-	100 Ixias -	1/-
50 Sir Watkin nar-		100 Sparaxis -	1/-
cissus -	2/3	50 Gladioli—The	
50 Horsfieldii -	1/9	Bride -	1/3
50 Ornatus -	1/-	50 Eggs and bacon	
100 Princeps -	1/6	narcissus -	1/6
50 Double white -	1/-	50 Butter and eggs	1/3
50 Parrot tulips -	1/3	50 Barii conspicuus	1/6
50 Mixed tulips -	1/-	50 Empress -	3/-
50 Extra special		50 Emperor -	2/6
single early tulips	1/6	100 Pheasant eye -	1/3
50 May flowering		50 Giant snowdrops	1/-
tulips -	1/6	100 Crocus, white,	
50 Darwin tulips -	1/9	blue or mixed -	1/-
50 Double tulips -	1/6	100 Crocus, yellow -	1/-
100 Spanish iris, white,		100 Spanish iris, mixed	0/9
blue or yellow -	1/-	50 Mixed early glad-	
100 Spanish iris in 10		iolis -	1/-
named kinds -	1/3	50 White tulips -	1/6
12 Mixed hyacinths -	1/-	50 Yellow tulips -	1/9
12 Named hyacinths	1/9	50 Red tulips -	1/9

### PLANTS.

50 Myosotis -	0/6	25 Pansies, blue -	0/6
12 Gaillardias -	0/6	25 Pansies, giant,	
20 Coreopsis grand	0/6	mixed -	0/6
25 White foxgloves	0/6	20 Viola — Mauve	
25 Spotted foxgloves	0/6	Queen -	0/6
20 Alyssum Sax.		25 Sweet Williams -	0/6
compacta -	0/6	20 Lupins, white or	
3 Blue primroses -	0/6	blue -	0/6
12 Hybrid primroses	0/6	20 Lupins, mixed -	0/6
15 Mixed polyanthus	0/6	6 Lupins Tree—	
25 Iceland poppies,		Snow Queen -	0/6
yellow, white,		12 Scarlet geums -	0/6
orange or mixed	0/6	6 Hardy maidenhair	0/6
12 Iceland poppies,		12 Gypsophila pani-	
new, excelsior		culata -	0/6
strain, lovely		12 Border carnations	0/6
new colours -	0/6	20 Marguerite car-	
12 Catanache cor-		nations -	0/6
rulea -	0/6	6 Double holly-	
6 Michaelmas		hocks, white,	
daisies -	0/6	blush pink, sal-	
12 Winter cherry -	0/6	mon, cream or	
8 Double hollyhocks	0/6	yellow -	0/6
10 Single hollyhocks	0/6	25 Canterbury bells,	
6 Delphiniums -	0/6	white, rose or	
25 Brompton stocks	0/6	mixed -	0/6
25 Pansies, white -	0/6	20 Canterbury bells,	
25 Pansies, yellow -	0/6	cup and saucer	0/6

50,000 wallflowers, either Blood Red, Golden King, Eastern Queen, Harbinger, Ruby Gem, Primrose Dame, or Vulcan—50, 1/3; 100, 2/-; 250, 4/6; 500, 8/- Carriage paid. All fine transplanted stuff.

All Orders for Plants from 3s., Bulbs from 5s., Carriage paid. For less amounts—Bulbs, 6d.; Plants, 4d. extra. Satisfaction or money returned.

**R. S. BANKS, . . HAZEL HOUSE, . .**  
**4d. extra. Satisfaction or money returned.**  
**SNAINTON, S.O., YORKS.**

## Salva-Fruta.

FOR SPRAYING FRUIT TREES IN WINTER.

All Fruit Trees should be treated with this preparation. It effectively

destroys every vestige of  
MOSS, LICHEN, AND GREEN SLIME,  
as well as the eggs of  
MOTHS, APHIDES, RED SPIDER, &c.

Salva-Fruta is a Powder, and is easily dissolved in cold water. It is put up in canisters of 1 lb., 2 lbs., 4 lbs., and 10 lbs. each.

Full Directions and Prices can be obtained from the Manufacturers,

**The United Alkali Co., Ltd.,**  
**GREENBANK WORKS,**  
**ST. HELENS, LANCASHIRE.**

Or from all the principal Seedsmen in the United Kingdom.

## HENRY'S BULBS

ARE THE FINEST AND CHEAPEST  
PROCURABLE. ALL GUARANTEED  
FIRST SIZE AND QUALITY. NOTE  
— A FEW OF MY SPECIALITIES. —

SEND ME A TRIAL ORDER. COMPARISON IN PRICE AND QUALITY MIGHT INTEREST YOU.

	Per doz.	Per 100
	s. d.	s. d.
12 HYACINTHS—Choice named, for pots or glasses, all different .. ..	4 0	—
12 HYACINTHS—Superb exhibition varieties, pots or glasses, all different .. ..	5 0	—
HYACINTHS—For beds, separate colours .. ..	1 6	10 6
.. .. all colours, mixed .. ..	1 6	10 6
.. .. Early white Roman, plant now to flower at Christmas, first size .. ..	1 9	13 0
.. .. Early white Roman, plant now to flower at Christmas, second size .. ..	1 4	10 0
TULIPS—Choice named, price on application.		
.. .. Fine mixed for bedding .. ..	—	—
ANEMONES—Single choice mixed .. ..	—	—
NARCISSUS—Polyanthus varieties, mixed .. ..	0 9	—
.. .. Principles, best yellow Trumpet .. ..	0 5	3 0
.. .. Trumpet sorts, choice mixed .. ..	0 6	3 0
CROCUS—Blue, white, striped .. ..	—	1 0
.. .. Yellow .. ..	—	1 6
RANUNCULUS—French and Turban .. ..	—	2 0
SNOWDROPS—Single .. ..	—	2 6
SPANISH IRIS—Finest mixed .. ..	—	1 0

ORDERS OVER 2s. 6d. POST OR CARRIAGE FREE.

WRITE FOR CATALOGUE OF ALL CLASSES OF BULBS, ROSES, FRUIT TREES, ORNAMENTAL SHRUBS, HERBACEOUS PLANTS, &c.

ORDERS DESPATCHED SAME DAY AS RECEIVED.

**David Henry,**  
CARLOW.

Bulb Merchant,  
Nurseryman and  
Seedsmen,

# FRUIT TREES

OF ACKNOWLEDGED FINEST POSSIBLE QUALITY.

About 25,000  $\frac{1}{2}$ -Standards for sale this season.

Every Tree winter-washed, carefully pruned, transplanted, and splendidly rooted.

SPECIAL OFFER of 6,000 4 and 5 year  $\frac{1}{2}$ -Standards, extra strong, big heads, fruiting trees. Apples, Pears and Plums in best sorts. Lists on application. 18/-, 20/- dozen. Worth double.

TRAINED APPLES, PEARS, PLUMS and CHERRIES.

Over 3,000 for sale. Magnificent Stuff.

2/-, 2/6, 3/6 to 5/- each. Trade supplied.

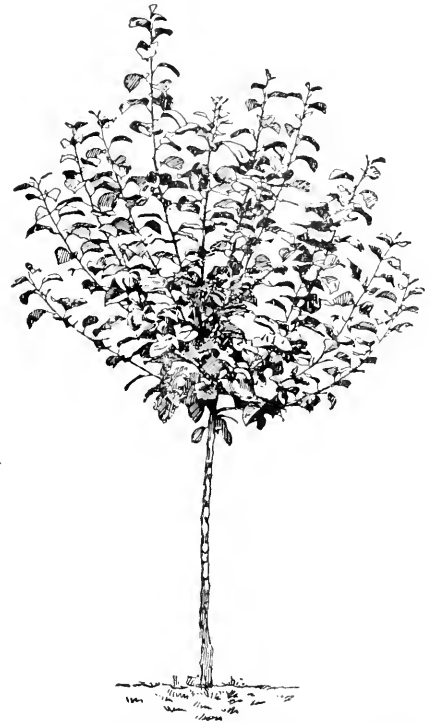
None but the most popular and best varieties offered in each Section. I cordially invite inspection of my stock. All I offer are growing in my nurseries.

FOREST TREES, SHRUBS, HEDGING PLANTS, &c., in large quantities.

SPECIMEN TRANSPLANTED SHRUBS a great speciality.

*Lists Free. Correspondence Invited.*

**JONES, F.R.H.S.,** FOREST LODGE NURSERIES,  
GOWRAN, CO. KILKENNY.



From a Photo of one of my 3-year-old trees growing in the Nursery. This is my type of  $\frac{1}{2}$ -Standard.  
Telegrams: "JONES, GOWRAN."

Beautify your Gardens by planting —————

Telephone 556.

Telegrams: "DRUMMONDS, DUBLIN."

## DRUMMOND'S FLOWER BULBS,

HOME GROWN AND CONTINENTAL.

Collections for indoor and out,

5/6, 10/6, 21/-, 42/-, 63/-.

☞ All orders of 5/- value and upwards

Carriage Paid.

**Fruit Trees, Forest Trees,**

**Roses, Shrubs,**

A most comprehensive and well-grown stock.

☞ Our Trees, being grown in Scotland, are exceptionally hardy and well-rooted, and consequently succeed much better than those grown in more southern districts.

FULL DESCRIPTIVE CATALOGUES ON APPLICATION.

**W. DRUMMOND & SONS, LTD.**

57 & 58 DAWSON STREET, DUBLIN.

# FRUIT TREES IN ALL FORMS.

Many thousands are being supplied yearly to Customers in all parts of Ireland, and are giving entire satisfaction . . .

Silver Medal awarded by the Royal Horticultural Society of Ireland for Collection of Fruit at Dublin Show, 1907 . . .

Silver-Gilt Medal awarded at the Royal Horticultural Society's British Fruit Show, held in London in October, 1908, for Collection of Hardy Fruit in Open Class for Nurserymen



**CORDONS**

A Speciality

Very large stock of BUSHES, PYRAMIDS

. . . and . . . TRAINED TREES, on Specially Selected Fruiting Stocks . . . . .

250,000 Trees to select from

Customers ordering . through the post may rely on receiving as good trees as those personally chosen

Illustrated Catalogue and Cultural Instructions sent free on application . . . . .

## W. SEABROOK & SONS, THE NURSERIES, CHELMSFORD

Planters of **FRUIT TREES** don't fail to plant . .

### BRAMLEY'S SEEDLING.

The most profitable Apple grown.

## THE ROSE. THE PEOPLE'S FLOWER. THE NATIONAL FLOWER.

Every Garden must Possess Them.

All Strong and Home-Grown Plants.

Notice the following Wonderful Bargain:—

**COLLECTION "C," GARDEN ROSES.**—The finest selection of **25 Garden Roses** in dwarf plants possible for **13/6** (with Acme Labels, **16/-**), carriage and packing free for cash with order.

350,000 FRUIT TREES of all kinds to select from.

A Grand Stock of Shrubs and Ornamental Trees.

Herbaceous Plants in great variety.

Send for Catalogue No. 25, full of interesting information and cheap prices, post free on application to

**MESSRS. H. MERRYWEATHER & SONS, LTD.,** (Dept. T.) Garden Specialists, **SOUTHWELL NOTTS.**

# Extra Size Trees for Avenue and Garden,

WITH GOOD STRAIGHT STEMS AND BUSHY HEADS, TRANSPLANTED 1907.

Acacias in variety, 8-10 ft., 10-12 ft., 2/6 to 5/- each.

Acers in variety, 6-7 ft., 7-8 ft., 8-9 ft., 2/6 to 5/- each.

Chestnuts, Horse, 8-9 ft., 9-10 ft., 2/- to 3/6 each.

„ Scarlet, 6-7 ft., 8-9 ft., 2/6 to 5/- each.

„ Spanish, 10-12 ft., 3/6 to 5/- each.

Elms in variety, 10-12 ft., 12-14 ft., 2/6 to 5/- each.

Elms, Weeping, 8-9 ft. stems, 3/6 to 7/6 each.

„ Golden, 9-10 ft. „ 3/6 to 5/- „

Limes, 6-7 ft., 7-8 ft., 8-9 ft., 10-12 ft., 2/- and 5/-

Laburnum, 6-7 ft., 7-8 ft., 2/- to 3/6 each.

Mountain Ash, 10-12 ft., 2/6 to 3/6 „

Poplars in variety, feathered for shelters, 7-8 ft., 8-9 ft., 1/6 and 2/6.

Sycamore, 8-10 ft., 10-12 ft., 12-14 ft., 2/6 and 5/- each.

Sycamore, variegated, 8-10 ft., 3/6 and 5/-

„ purple, 10-12 ft., 12-14 ft., 3/6 to 5/-

Thorns, double and single, 7-8 ft., 8-10 ft., 2/6 to 5/- ; also

Splendid stock of Ligustrum ovalifolium, bushy, 8/-, 10/-, 12/6 per 100.

Laurels rotundifolia, 10/-, 12/-, 15/-, 25/- per 100 ; also

Roses, Fruit Trees, Herbaceous Plants, Creepers, Conifers, and Flowering Shrubs, &c., in great variety.

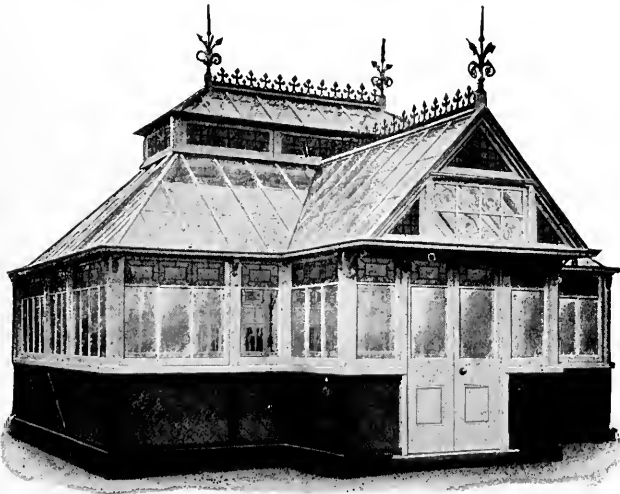
Catalogues free on application to

## ALEX. DICKSON & SONS, Ltd.


ROYAL IRISH NURSERIES

OAKLEY PARK, BLACKROCK, CO. DUBLIN

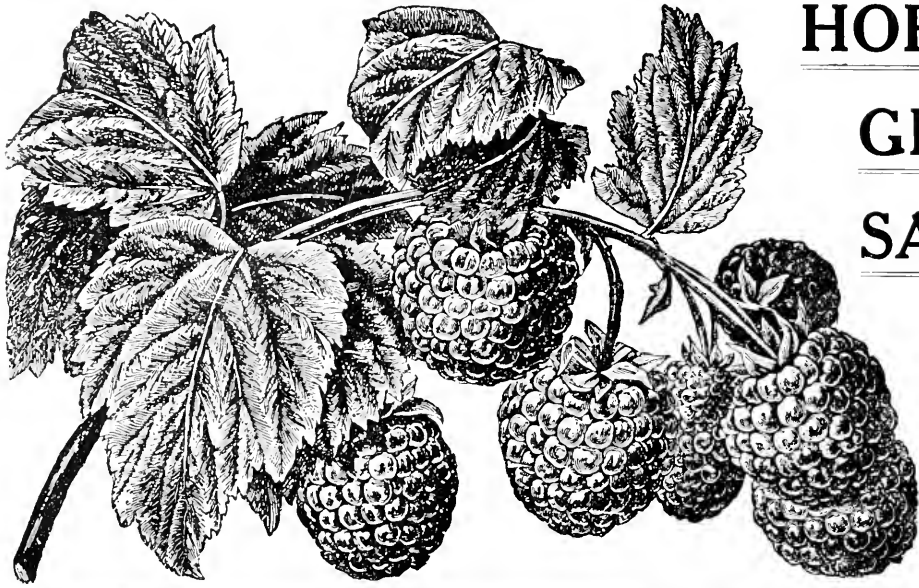
## JAMES CRISPIN & SONS, F.R.H.S.



Supply all Classes of  
HORTICULTURAL  
BUILDINGS  
HEATING  
VENTILATING  
AND  
DOMESTIC  
SUPPLY  
APPARATUS

 Please write for Catalogue illustrating this and other Ornamental Conservatories.

Head Office : NELSON STREET, BRISTOL.



# HORNE'S GREAT SALE..



**CLIFFE**

Near  
Rochester

**KENT.**

**Messrs. PROTHEROE & MORRIS** are instructed by W. HORNE & SONS to hold a Great Sale of Fruit Trees and Potatoes on the premises, Perry Hill, Cliffe, near Rochester, Kent, adjoining Cliffe Station, South Eastern and Chatham Railway, on

**WEDNESDAY, NOVEMBER 11th, 1908.**

## 200,000 FRUIT TREES AND BUSHES

Of all kinds, including several thousands

### STANDARD APPLES, PEARS, AND PLUMS.

**10,000 Maiden Apples on English Paradise.**

The following popular kinds are included: James Greive, Ben's Red, Charles Ross, Cox's Orange, Allington Pippin, Hector Macdonald, Jersey Beauty, Bramley Seedling, Lord Derby, Worcester Pearmain, Ecklinville Seedling, Newton Wonder, Norfolk Beauty, Blenheim Orange, Warner's King, Edward VII., Rival, Quarrenden.

**Also a very fine lot of 30,000 Pyramid Apples, 2 and 3 year, on English Paradise.**

Including Worcester Pearmain, Cox's Orange Pippin, James Greive, Allington Pippin, Bramley Seedling, Warner's King, Houbion, Charles Ross, Peasgood Nonsuch, Beauty of Bath, and many others.

**About 50,000 Half-standard Apples on Crab Stock, 2 and 3 year.**

Worcester Pearmain, Cox's Orange Pippin, Bramley Seedling, Newton Wonder, Allington Pippin, Lord Derby, Blenheim Orange, James Greive, and many others.

#### Standard Apples.

The following popular kinds are included: Cox's Orange Pippin, Worcester Pearmain, James Greive, Ecklinville, Allington Pippin, Blenheim Orange, Devonshire Quarrenden, Bramley Seedling.

About 10,000 Pears and Plums; about 10,000 Black Currants, 10,000 Gooseberries, 5,000 Red Currants, 30,000 Raspberries, several thousand Cabbage and Strawberry Plants, several tons Scotch Seed Potatoes, Loganberry Plants from layers.

**FREE LUNCHEON AT 11. SALE AT 11 30.**

**NOTICE.**—The Auctioneers desire to call the attention of Fruit Growers, Market Gardeners, and intending Planters to this important Sale. It is seldom such an opportunity offers itself for securing new and rare kinds of Fruit Trees, &c., in such large quantities. All are well grown and healthy. They are without doubt the finest lot of Fruit Trees ever yet offered at Cliffe.

Fourteen days will be allowed to clear and settle accounts. Messrs. HORNE & SONS will lift and cart all lots and put them on rail after the Sale free of charge. Catalogues free of Messrs. HORNE & SONS, Cliffe, near Rochester; and of the Auctioneers, 67 & 68 Cheapside, London, E.C.

# "GARDEN AND WOODLAND"



## Mackey's Nursery Catalogue

FOUNDED  
IN  
1777

Fruit Trees, Roses, Conifers  
Ornamental Trees and Shrubs  
Climbing and Wall Plants  
Hedge Plants, Forest Trees  
Bamboos, Herbaceous Plants

CATALOGUE  
FREE ON  
APPLICATION

Sir James W. Mackey, Ltd.  
23 Upper Sackville Street, DUBLIN

## LAXTON'S FRUIT TREES

Many Thousands of Well Trained, Beautifully  
Rooted APPLES, PEARS, PLUMS, PEACHES,  
NECTARINES, APRICOTS, CHERRIES, FIGS,  
VINES, NUTS, GOOSEBERRIES, CURRANTS,  
RASPBERRIES, &c., &c.

AS . . .

CORDONS, PYRAMIDS, BUSHES, STANDARDS, FAN  
TRAINED, ESPALIER TRAINED, AMATEURS'  
STANDARDS, &c.

New fully Illustrated and Descriptive  
Catalogue Gratis.

LAXTON BROTHERS, BEDFORD





# APPLE TREES.

LOVELY EXAMPLES OF GROWTH  
2, 3 and 4 YEARS OLD.  
ON BOTH CRAB AND PARADISE STOCKS

MODELS OF CLEANLINESS AND PRE-  
PARED FOR IRISH GARDENS AFTER  
— THE BEST POSSIBLE MANNER. —

*Inspection by Intending Purchasers kindly  
solicited. The specimen trees planted out for  
"Stock" purposes are very fine.*

¶ We don't buy Continental Trees, and the sooner we  
give up auctions or cheap dumping sales of such the  
more we will be free from American Blight and all  
sorts of insect visitations; the latter spreads itself as  
much in the packing as in the trees.

WRITE FOR UNIQUE OFFER

**Wm. Baylor Hartland & Son,**

ARD CAIRN SEED, BULB, AND  
FRUIT TREE SPECIALISTS,  
CORK.

## RELIABLE FRUIT TREES

AT REASONABLE PRICES

Intending planters are invited to send  
for our descriptive Catalogue of Fruit  
Trees, of which we hold an immense  
stock, well grown, true to name.

Whether you are planting for pleasure  
or profit, or both, it is of the utmost  
importance to buy good Trees and to  
plant them well.

Our Trees are doing exceptionally well  
in Ireland, and we are prepared to  
quote special prices for large or small  
quantities, delivered to any railway  
station.

Roses, Ornamental Trees and Shrubs  
Hardy Perennials, in great variety  
CATALOGUES FREE.

**The Barnham Nurseries, Ltd.**  
BARNHAM, SUSSEX.

## CHOICE CARNATIONS

Thoroughly well-rooted  
layers of Border Varieties  
Excellent Selection of American and  
English Winter Flowering Carnations  
Malmaisons in great variety  
All plants thoroughly healthy

**Hayward Mathias** Medstead  
HANTS

## "WELLS' CATALOGUE

Of Chrysanthemums, Pentstemons, Michaelmas  
Daisies, and Phlox, NOW READY.

Sent post free on receipt of post card.

For Early Single Chrysanthemum and  
Pentstemon Seed, see page 50

"THE CULTURE OF THE CHRYSANTHEMUM"  
By W. WELLS. Post free, 1/6

W. WELLS & Co., MERSTHAM, SURREY

**3,000,000 BULBS** 5s. Orders Carriage  
Paid; under, 3d.  
towards Carriage.

	s.	d.
12 Hyacinths, mixed colours; or 6 named	...	1 0
25 Miniature Hyacinths, mixed (Cat. price, 1s. 6d. doz.)	...	1 0
36 Tulips, singles, in 6 colours; or 24 named	...	1 0
24 Tulips, double, four named sorts; or 30 mixed	...	1 0
12 Hardy Cyclamen Europeans (Cat. price, 2s. 6d. doz.)	...	1 0
12 Polyanthus Narcissus, in 6 varieties	...	1 0
100 Crocus, mixed, four colours; or 50 named	...	1 0
200 Spanish Iris; or 100 named	...	1 0
100 Giant Snowdrops; or 50 extra large	...	1 0
100 Pheasant-eye Narcissus; or 50 extra large	...	1 0
100 Daffodils Princess, Irish; or 50 picked	...	1 0
100 Double Daffodils; or 50 large	...	1 0
100 Double White Daffodils; or 50 large	...	1 6
50 Ornatus, or 25 Emperor, or 25 Empress or Sir Watkin	...	1 0
50 Freesias, refracta alba	...	1 0

**Xmas Collection.—1s. 6d.** Double 2s. 6d. 12 Early Dutch Roman  
Miniature Hyacinths, 12 Polyanthus Narcissus (mixed), 12 Freesias  
refracta alba, 12 Giant Snowdrops, 12 Trumpet Daffodils, 12 Allium  
Neapolitan.

**12 Hyacinths, in 12 sorts, 2s. 50 Single Tulips, 10 sorts, 2s. 12  
dozen Bulbs, 2s. 6d.** Hyacinths, Tulips. Wonderful Collection.  
**Masterpiece Collection.**—100 Bulbs, in 10 sorts, 1s. Postage, 4d.  
Hyacinths (miniature), Tulips, Ixias, Iris, Daffodils, Narcissus,  
Ranunculus, Crocus.

**Collection A.—100 Bulbs for 1s.** Post and packing, 4d.; 500 for 5s. 6d.  
Tulips (superfine, mixed), Iris Hispanica (Poor Man's Orchid), French  
Ranunculus, Daffodils, Narcissus, Sparaxis, Ixias (Cape Bulbs),  
Snowdrops, Single Anemone (Windflowers), Crocus (mixed colours).

**Collection B.—1s., for Greenhouse.** 3 Hyacinths for pots, 6 Single  
Tulips, 6 Double Tulips, 6 Daffodils (mixed trumpets), 6 Polyanthus  
Narcissus, 6 White English Iris (Mont Blanc), sold at more than the  
1s. The lot 1s. Postage and packing, 4d.; 6 lots, 5s. 6d.

**Collection C.—50 Bulbs for 1s.** English Iris (mixed), Giant Snow-  
drops, Single Tulips (superfine, mixed), large Trumpet Daffodils,  
Scillas Siberica (lovely blue). 50 in 5 sorts, 1s. Packing and  
carriage, 4d.; 5 lots for 5s. 6d.

**Collection D.—1s.** 30 Tulips, in 6 colours: white, yellow, scarlet, red  
and yellow, red and white, and rosy pink, for garden or greenhouse.  
30 Tulips, 6 colours, for 1s.

**Collection E.—1s.** Hyacinths for pots or borders. 8 named Hyacinths,  
in 8 different varieties, 1s.

**Collection C.—1s.** 50 bulbs for graves, all white: Iris, Tulips, Snow-  
drops, Anemones, Double White Narcissus. 50 Bulbs, in 5 sorts, all  
white, for 1s.

COUPDN.—6s. WORTH FOR 5s. IF THIS IS ENCLOSED.

Only offered to IRISH GARDENING readers.

**THEODORE TURNER, F.R.H.S.,** TUNSTALL STREET,  
LIVERPOOL.

# PLANTING SEASON

Roses (Climbing)—the finest lot ever seen

Roses (Bedding), and uncommon kinds

Seaside Shrubs —————

Flowering Shrubs and Trees

Climbing Shrubs and Plants

Herbaceous and Alpine Plants



## T. SMITH

### Daisy Hill Nursery, NEWRY

The best collection  
in the Kingdom

County Armagh  
Grown Fruit Trees

Very Large Stock of—

APPLES . GOOSEBERRIES

PEARS . CHERRIES .

PLUMS . RASPBERRIES .

Immense stock of Black Currants,  
new varieties ; grand bushes,  
clean and healthy, 2, 3, and 4  
years' old. Also Shrubs, Forest  
Trees and Thorns of Sizes

*Orders have prompt attention*  
CATALOGUES FREE

## W. BLEAKLEY

Nurseries, Killylea, Co. Armagh

## FRUIT TREES

Apples

Pears

Plums

Gooseberries

Currants

Strong, healthy, and well grown

CATALOGUES ON APPLICATION

THOMAS

## McKenzie & Sons

Ltd. ————— DUBLIN

# Department of Agriculture and Technical Instruction for Ireland

## LIST OF THE DEPARTMENT'S LEAFLETS

No.	Name	No.	Name
1	The Warble Fly.	50	Portable Poultry Houses.
2	<i>Out of Print.</i>	51	The Leather-Jacket Grub.
3	<i>Out of Print.</i>	52	Flax Experiments.
4	<i>Out of Print.</i>	53	The Construction of a Cowhouse.
5	<i>Out of Print.</i>	54	Calf Meal.
6	Charlock Spraying	55	The Apple.
7	Fluke in Sheep.	56	Cultivation of the Root Crop.
8	Timothy Meadows.	57	Fruit Packing.
9	The Turnip Fly.	58	Sprouting Seed Potatoes.
10	Wireworms.	59	Seed Testing Station for Ireland.
11	Prevention of White Scour in Calves.	60	The Packing of Butter.
12	<i>Out of Print.</i>	61	<i>Out of Print.</i>
13	Contagious Abortion in Cattle.	62	Plans for Creamery Buildings.
14	Prevention of Potato Blight.	63	"Redwater" or "Blood Murrain" in Cattle.
15	Fertilizers and Feeding Stuffs Act, 1906, Regulations.	64	Varieties of Fruit suitable for cultivation in Ireland.
16	Sheep Scab.	65	Forestry: The Planting of Waste Lands.
17	The Use and Purchase of Manures.	66	Forestry: The Proper Method of Planting Forest Trees.
18	Swine Fever.	67	Forestry: Trees for Poles and Timber.
19	Early Potato Growing.	68	Forestry: Trees for Shelter and Ornament.
20	Calf Rearing.	69	The Prevention of Tuberculosis in Cattle.
21	Diseases of Poultry—Gapes.	70	Forestry: Planting, Management, and Preservation of Shelter-Belt and Hedgerow Timber.
22	Basic Slag.	71	Forestry: The Management of Plantations.
23	Dishorning Calves.	72	Forestry: Felling and Selling Timber.
24	Care and Treatment of Premium Bulls.	73	The Planting and Management of Hedges.
25	Fowl Cholera.	74	Some Common Parasites of the Sheep.
26	Winter Fattening of Cattle.	75	Barley Sowing.
27	Breeding and Feeding of Pigs.	76	American Gooseberry Mildew.
28	Blackleg, Black Quarter, or Blue Quarter.	77	Scour and Wasting in Young Cattle.
29	Flax Seed.	78	Home Buttermaking.
30	Poultry Parasites—Fleas, Mites, and Lice.	79	The Cultivation of Small Fruits
31	Winter Egg Production.	80	Catch Crops
32	Rearing and Fattening of Turkeys.	81	Potato Culture on Small Farms.
33	Profitable Breeds of Poultry.	82	Cultivation of Main Crop Potatoes.
34	The Revival of Tillage.	83	Cultivation of Osiers.
35	The Liming of Land.	84	Ensilage.
36	Field Experiments—Barley.	85	Some Injurious Orchard Insects.
37	" " Meadow Hay.	86	Dirty Milk.
38	" " Potatoes.	87	Barley Threshing.
39	" " Mangolds.	88	The Home Bottling of Fruit.
40	" " Oats.	89	The Construction of Piggeries.
41	" " Turnips.	90	The Advantages of Early Ploughing.
42	Permanent Pasture Grasses.	91	Black Scab in Potatoes.
43	The Rearing and Management of Chickens.	92	Home Preservation of Eggs.
44	"Husk" or "Hoose" in Calves.	93	Marketing Wild Fruits.
45	Ringworm on Cattle.		
46	Haymaking.		
47	The Black Currant Mite		
48	Foul Brood or Bee Pest.		
49	Poultry Fattening.		

Copies of the above Leaflets can be obtained, FREE OF CHARGE and post free, on application to the Secretary, Department of Agriculture and Technical Instruction for Ireland, Upper Merrion Street, Dublin. Letters of Application so addressed need not be stamped.

Inspection  
Invited

# DICKSON'S

Catalogues on  
Application

## FRUIT TREES AND ROSES



Fruit Trees  
in all the  
different forms  
of training.

The Finest  
Collection  
in Ireland.

Gooseberries  
absolutely free  
from American  
Mildew.



Roses for Beds,  
Walls, Arches,  
Pergolas,  
Shrubbery,  
Massing,  
Weeping,  
and  
Creeping.

Thousands of  
Strong, Healthy  
Plants  
in the best and  
newest varieties.



BUSH APPLE WITH FRUIT.

The only Address . . .

**HUGH DICKSON,** Royal Nurseries, **BELFAST.**

## The Planting Time.

IT costs as much to plant and grow indifferent trees as good ones, and yet every season we see people planting trees of poor quality from a doubtful source, perhaps also paying heavy carriage upon trees from a long distance which have been a considerable time out of the ground. Many of our readers will presently be extending or planting new orchards, replenishing garden fruits, or planting ornamental shrubs, roses, &c. It is all important with trees which are to be of many years standing that at the outset good specimens be secured, true to name, and from a reliable nursery. We have no hesitation in directing the attention of planters to one of our home nursery firms, Messrs. WATSON & SONS, Clontarf Nurseries, and 18 Nassau Street, Dublin. They have a large stock of trees of all kinds in clean and healthy condition which planters who find time to call at the nurseries (fifteen minutes' tram drive from Nelson's Pillar) may see for themselves, and those who cannot conveniently call should note that the Messrs. WATSON attend personally to their clients' instructions by post or telephone.

A visit to Messrs. WATSON'S Nurseries will convince intending planters that there is no need to cross the Channel for roses, fruit trees, or indeed most nursery stock, which formerly was not to be obtained satisfactorily in Ireland. Long-distance carriage is saved to Messrs. WATSON'S patrons, and what is perhaps more important with goods of a perishable nature, owing to their nurseries being situated in the metropolis, the most direct routes are available to the provinces, with the result that the trees arrive in perfect condition, and are replanted before they have had time to suffer. Descriptive catalogues may be had free by post.

## Correspondence—continued.

### LOCAL SHOWS.

SIR,—May I venture to make a suggestion. I am "on" the committee of a local society that includes horticulture among its other activities, and I take a very great interest in local effort and in local exhibitions, but we are isolated, going our own way, and hearing little about the methods of procedure in similar societies. Now that a real Irish gardening paper seems to be established in our midst, it surely might easily be made an organ of inter-communication among the different kindred societies in this country. Perhaps others have felt the same thing; if so, and seeing this, it might be productive of some good if (with your consent) they would voice their ideas on a matter that appears to me to be of much importance to the "Advancement of Horticulture," which is the sub-title of your ever welcome little journal. "PROVINCIAL."

### A PRACTICAL SUGGESTION.

SIR,—The apple, as all growers know, is a very variable subject as to its suitability to soil, situation and season. For example—as has been demonstrated in past seasons—some varieties do much better in dull damp summers than in dry and sunshiny ones. I write to suggest that a list of all kinds of apples that have borne fruit freely in each county this year should be compiled, and from it a pomological map of Ireland for 1908, so far as the apple is concerned, be prepared for the information of fruit growers.

F. J. K.

**Forest, Fruit & all other Trees  
& Plants, Roses, Evergreens &c.**  
*Stocks quite unequalled. Catalogues post free.*  
**Dicksons Nurseries Chester**



This "Apparatus" has obtained repute both in Large and Small Gardens.

Write for Discounts and Price Lists.

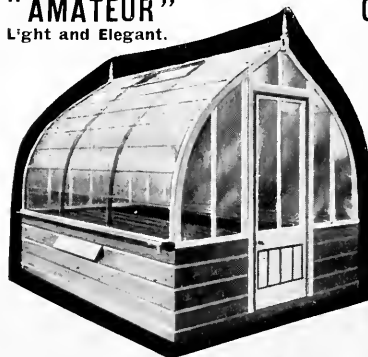
Manufacturers of  
PLAIN AND ORNAMENTAL  
SPOUTING,  
HOT WATER PIPES,  
BOILERS, PUMPS, LAMP  
POSTS, VENTILATING  
GEAR.

**THOS. W. ROBINSON, LTD.,**

Boiler and Pipe Manufacturers,

**STOURBRIDGE.**

**BOARD'S PATENT "WIRE TENSION" GREENHOUSES.**  
IRON FRAME.  
NO OUTSIDE  
ROOF PAINTING.  
FLAT GLASS.  
NO DRIP



### SPAN ROOF.

10 ft. x 8 ft.	£12 10 0
12 ft. x 8 ft.	14 10 0
14 ft. x 8 ft.	16 10 0

### LEAN TO.

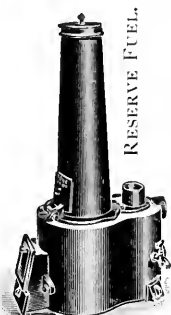
10 ft. x 6 ft.	£9 10 0
12 ft. x 6 ft.	11 0 0
14 ft. x 6 ft.	12 10 0

Carriage paid to Irish Ports.

**SKINNER BOARD & CO., BRISTOL**

## PATENT Greenhouse Boilers.

**BOILERS**  
from £2 5s.  
and upwards,  
carriage paid  
any Goods  
Station.



NO BRICKWORK .  
TENANTS' FIXTURE  
EVEN TEMPERA-  
TURE. RELIABLE  
. NO TROUBLE .

### Guaranteed Minimum Burning 12 Hours

at full heat, without attention. When running  
easily, burning increased to 16-30 hours.

Thousands in use giving entire satisfaction.

*Catalogues and Estimates Free.*

**12-HOURS' STOVE SYNDICATE, LTD.,**  
66 VICTORIA STREET, LONDON, S.W.

ESTABLISHED 1820

## S. SPOONER & SONS

Fruit Tree Growers

## HOUNSLOW NURSERIES

HOUNSLOW, MIDDLESEX



## Fruit Trees a Speciality

Over half-a-million to select from



CATALOGUES FREE ON APPLICATION

INSPECTION INVITED

## IMPORTANT TO GARDENERS and Fruit Growers.



# "Niquas"

(Registered),

The most successful Non-poisonous Insecticide  
of the day.

ITS ADVANTAGES ARE—

Certain death to all Insect Pests.  
No possible injury to the most delicate Plant, Flower or Foliage.  
It is by far the cheapest Insecticide known. One pint makes ten  
to twelve gallons for Thrip, Black and Green Fly, etc., whilst RED  
SPIDER, Mealy Bug, and Scale can be thoroughly eradicated by  
using "NIQUAS," double or three times the strength required for  
Fly.

**PRICES**—Pint, 1/-; Quart, 1/9; Half-Gallon, 3/-; Gallon, 5/-;  
Kegs, each Five Gallons, 22/6; Ten Gallons, 42/6.

Ask for Testimonials, of which some hundreds have been  
received.

### SPECIMEN TESTIMONIAL.

From Mr. E. HUBBARD, Gardener to G. Hanbury, Esq.,  
Blythwood, Burnham, Bucks, May 15th, 1906.

"I have been using your "NIQUAS" Insecticide for some  
years, and can with all confidence say it is the best I have ever  
used for Bug, Thrip, Red Spider, American Blight, and for all  
Insect Pests it has no equal. Also for the destruction of Maggots  
in Marguerites by dipping.

"I have recommended it to my friends generally."

## LETHORION

Registered No. 62957.

IMPROVED METAL



## VAPOUR CONE

FOR FUMIGATING.

At Greatly Reduced Prices.

INTRODUCED 1885.

(Registered Trade Mark.)

This well-known invention for the entire eradication of all pests  
infesting vegetation under glass is now manufactured in a more  
simple and reliable form. The small candle, which will be found  
packed with each cone, has only to be lighted, and placed on the  
ground in the centre of the Cone frame, to produce immediate  
results. Nothing on the market can equal it for efficacy and  
cheapness.

Cone No. 3, for a well-secured house of cubic 2,000 to 2,500  
feet, 1/- each. Cone No. 2, for a well-secured house of cubic  
1,000 to 1,200 feet, 8d. each. Cone No. 1, Carbon, for frames of  
cubic 100 feet, 6d. each. Full directions accompany each Cone.

Ask for a list of Testimonials, of which some hundreds have been  
received from the leading gardeners in the Kingdom.

To be had from all Seedsmen  
and Florists.

MANUFACTURED BY

**CORRY & CO., LTD.,**

At their Bonded Chemical Works,

**SHAD THAMES, S.E.**

Office & Show Rooms:—13 & 15 Finsbury St., London, E.C.

## News Note.

THE DUBLIN SEED AND NURSERY EMPLOYEES' ASSOCIATION have issued their programme for the Winter Session. It includes an announcement of a course of six lectures at the Royal College of Science, as follows:— 1. The Advent of the Seedsman in Agriculture, and 2. Some Grasses and Clovers, by Professor James Wilson; 3 and 4. The Plant in Health and Disease, by Dr. George H. Pethybridge; 5. The Physical Condition of the Soil in its Relation to Agriculture, by Mr. T. Hallissy, B.A.; and 6. Weather in Relation to Vegetation, by Mr. W. J. Lyons, B.A. A conversazione and exhibition of ornamental shrubs, &c., will be held at the Gresham Hotel on the 19th of the present month.

## Reports of Shows.

## Royal Horticultural Society of England.

## Fruit Show.

TAKING things in general, what may be described as a very fine show was held by the above society at Vincent Square, Westminster, on October 15th and 16th; it was well attended and a great success.

Visitors this year missed the exhibits of fruit trees grown in pots, which are usually such a feature at this show. The apples and pears in general were scarcely up to the average in size, but the fruit were much more highly coloured, especially in the dessert apple classes.

Pears showed up fairly well, but there was a poor display of late plums. Grapes were a very strong lot, and some very fine bunches were shown, but some of them appeared to have too much bloom on them.

There was a strong competition in the tables of fruit for nurserymen, the premier prize, for the twenty-fourth time, going to Mr. G. Bunyard and Son, Maidstone, Kent, with a very fine collection of apples and pears, very well staged. These included some of the newer apples, such as Lord Castlereagh, Mrs. Phillimore, Coronation Rival, Houblon, and Charles Ross.

Messrs. H. Cannell and Son, Swanley, had a very fine display, which consisted of 180 varieties of good quality fruit.

Mr. Seabrook, Chelmsford, Essex, was awarded a silver medal for an excellent lot of very highly coloured fruit, which was chiefly the produce of cordon trained trees.

The collections open to amateurs, &c., contained the best fruit exhibited, especially those of Lieut.-Colonel Barton, Hunton, Kent, the varieties Warner's King, Peasgood's Nonsuch, Mere de Menage, Alfriston, Bismarck, and Emperor Alexander, in the cooking, and Wealthy, C. Ross, Cox's Orange Pippin, King of the Pippin, Rival and American Mother having been well grown, and well deserved the award of the Hogg medal.

In the class for four cooking and two dessert open to Ireland, Mr. Blackmore, Garmara, Piltown, was first with very fine specimens. Mr. Broad, Aherne, Conna, Co. Cork, was second, staging fine fruits of Rival and Charles Ross.

The single dishes of cooking apples were a little below the average in size but the dessert varieties were

# CROSS'S "GARDEN FERTILISER,"

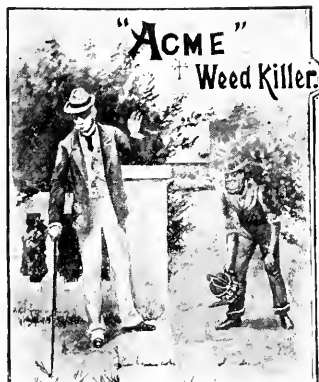
## GARDEN SEEDS,

## AND INSECTICIDES.

Alex. CROSS & SONS, Ltd.,  
Horticultural Specialists,  
GLASGOW.

(Almost 100 YEARS Established.)

On Sale by ALL SEEDSMEN.



"Weeds, weeds everywhere! I wonder if that new gardener can suggest anything?"  
"Yes, sir. I'm just using the 'Acme' Weed Killer. The best in the world for killing weeds."

### CLEAN PATHS. CLEAN PLANTS.

Used in the Crystal Palace Grounds, the Royal Horticultural Society's Gardens, Kew, and in the principal Gardens of the United Kingdom.

**STRENGTH, 1 in 25. 1 Gall. to 25 Gallons of Water.**  
1 Gall. 2s. 3d., tin free; 5 gall. 7s. 6d., drum, 2s. 6d.; 10 gall. 13s. 4d., drum, 5s.; 40 gall. 50s., cask 5s. Carriage paid on 5 gallons and upwards.

**DOUBLE STRENGTH. 1 Gall. to 50 Gallons of Water.**  
½ gall. 2s., tin free; 1 gall. 3s. 6d., drum, 9d.; 5 gall. 14s., drum, 2s. 6d.; 10 gall. 25s. 6d., drum, 5s., 40 gall. 90s., cask, 5s. Carriage paid on 2 gallons and upwards. Empties allowed for when returned

### "ACME" POWDER WEED KILLER.

Sizes	Tins free	Per tin
No. 1	To make 25 gallons	1s. 9d.
No. 2	" 50 "	3s. 3d.
No. 3	" 100 "	6s. od.
Soluble in cold water. No. 3 carriage paid. Prices or larger quantities on application.		

### COMPOUND QUASSIA EXTRACT INSECTICIDE.

Safest and best for all purposes. Certain death to Aphis, Red Spider, &c., &c. Sample pint sufficient for 10 galls., 1s. Post paid. Try it.

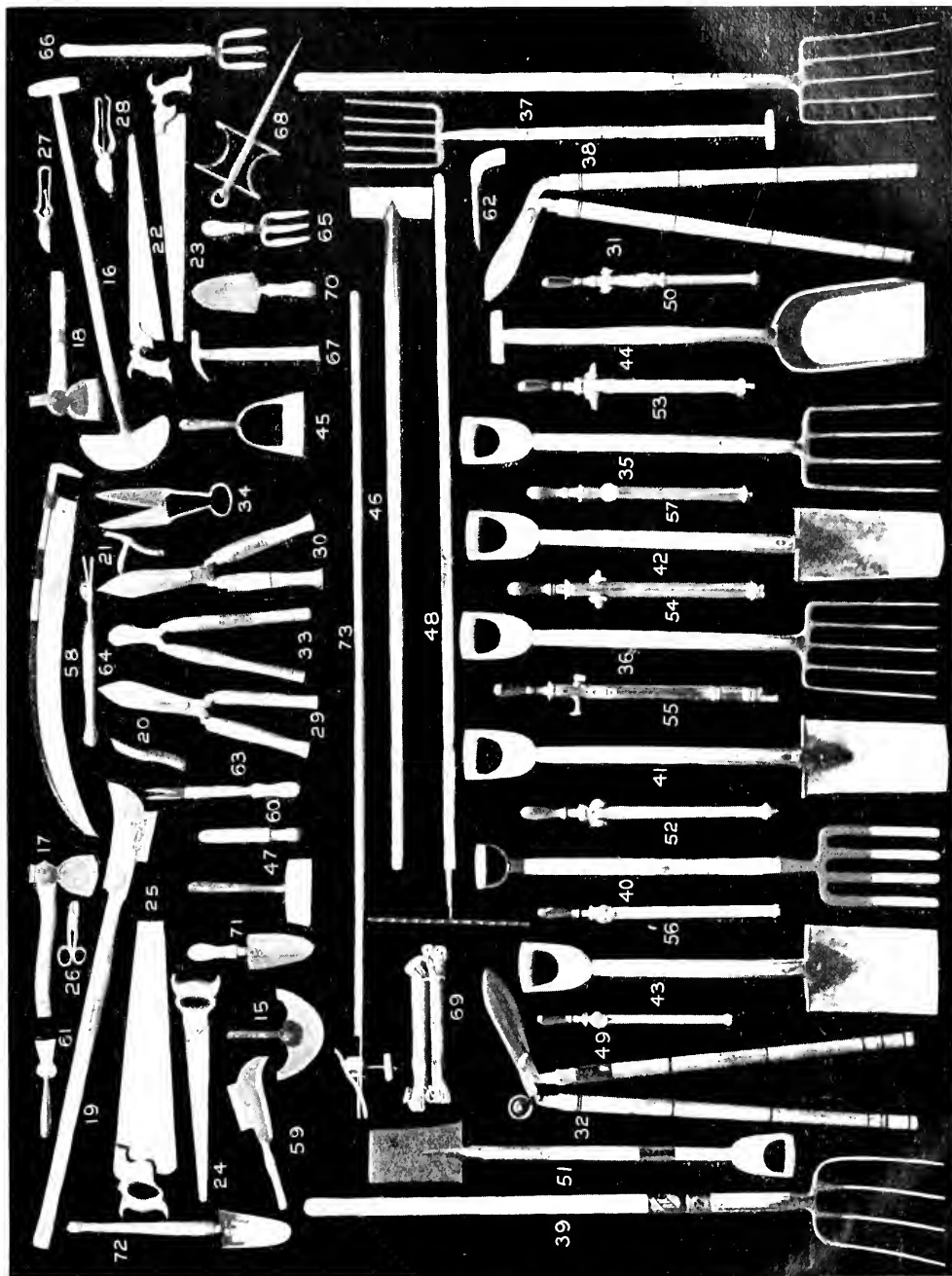
ACME CHEMICAL CO., Ltd.,  
TONBRIDGE, KENT & RIVER ST., BOLTON, LANCs.

Agents: HAYES, CONYNGHAM & ROBINSON, LTD., Chemists, 12 Grafton Street, DUBLIN.



# EDMONDSON BROTHERS

SEED, BULB AND  
TOOL MERCHANTS



For Prices of Seeds and Bulbs  
See Catalogues, Post Free on application

10 DAME STREET, DUBLIN

Reports of Shows—*continued.*

a very good lot, and contained some very highly coloured fruits. There were three new varieties which received awards of merit, these being a Red Bramley, a sport from Bramley's Seedling, exhibited by Messrs. Merryweather and Son. It is a typical Bramley, except for the colour of the fruit, the tree having the same growth.

A new apple (Encore), was exhibited by Mr. Chas. Ross; it also won first prize in the any other variety cooking class. Mr. Ross informed me it is the best apple he has yet raised. It is of good size, and firm-fleshed, rather resembling a high-shouldered Lane's Prince Albert.

A new pear, "Beurre de Naphan," from Michael Crawley. It is a free bearer, and will be a great acquisition to our list of pears. It is very large, well shaped, and of a pale-green colour, which turns yellow when ripe in December.

CONFERENCE.—On the second day a conference on spraying was held in the hall, papers being read by Mr. Massee and Mr. Getting on Spraying for Fungi, and by Mr. Hammond and Prof. Theobald on Spraying for Insects. Mr. Massee confined his remarks chiefly to apple and pear scab, and said he was sorry that no spray had as yet been found to effectually deal with it. He said the best plan was to cut away all the dead wood from the trees in winter, and to spray them at the time with a solution of 1 lb. copper sulphate to 25 gallons of water. He believed more in this than in the summer spraying. He urged far more spraying, especially in winter.

Professor Theobald was of opinion we did too much spraying, especially in winter, with caustic sprays, as

not only was some of it unnecessary, but much damage was done to the trees. He advised to spray the trees only when affected with moss or attacked by insects, and that much money was annually wasted in trying to keep away insects when the trees were apparently clean and healthy. The majority of those present did not agree with him, but approved of spraying the trees at least once a year with caustic spray, either to make or keep them clean.

It may be here remarked that just the opposite to Professor Theobald's teaching is what we experience in this country; at least I have not as yet seen an orchard which received too much spraying, and I would strongly advise all fruit-growers to spray all their trees at least once during the winter with the caustic spray, as I think the trees will be like the little boy who was asked how often did he wash himself, when he replied "once a week whether I want it or not." In this damp climate the trees will want to be caustic sprayed once a year. W. S. I.

Cork.

THE Munster Agricultural Society's Fruit, Root and Grain Show was held in the City Hall, Cork, on Thursday and Friday, October 15th and 16th, and the entries were nearly double those of last year when fruit was so scarce all over the country. Quality all through the fruit classes was remarkably high, and nature had coloured the fruit so highly that I thought there would have been no need for the polishing that we so often see, but it was not so, and I hope ere another fruit show comes round that the committee will see their way to print in the schedules that polishing apples will disqualify. In dessert apples Worcester Pearmain, King of Pippins, Cox's Orange Pippin, Blenheim Pippin and

## APRONATUS PONICUS.

What's this! A New Plant?

No!

## A NEW APRON!

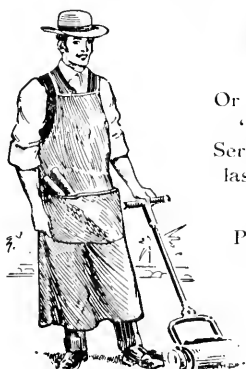
Designed by a Gardener for Gardeners.

LOOK AT THE PRICE.

In  
Dark Blue  
"Ponicus"  
Twill,

**1/9**

Postage 3d.  
extra.



Registered.

Or in Dark Blue  
"Ponicus"  
Serge of Ever-  
lasting Wear,

**3/9**

Postage 3d.  
extra.

From Belfast—ALEX. DICKSON & SONS, Ltd., 55 Royal Avenue.

From Dublin—W. DRUMMOND & SONS, Ltd., 58 Dawson Street.

ALEX. DICKSON & SONS, Ltd., 61 Dawson Street.

EDMONDSON BROTHERS, 10 Dame Street.

## H. CANNELL & SONS

Have **200,000** . .  
exceptionally well-  
rooted saleable .

## FRUIT TREES.

ALL SIZES, SHAPES, AND THE CLEANEST,  
FINEST KINDS IN EXISTENCE.



We cordially invite all to "Come and See" them at Eynsford (adjoining the Station). It is wonderful what has been done to double our Fruit Crop than hitherto, in all parts of the world.

Mr. G. Roche, The Gardens, Gowran Castle, Gowran, Co. Kilkenny, writes:—  
"Your trees are just what I require. Send me on 360 ordon Pears. I have planted 8,000, and am really sorry that I did not know of your trees before; however, I do now. Next year I hope to have a large quantity from you."

AS MUCH MIGHT BE SAID OF OUR ROSES, SHRUBS, AND  
GENERAL NURSERY STOCK.  
PLEASE CORRESPOND TO—**SWANLEY, KENT.**

# 'EUREKA' WEED KILLER.

SAVES WEARY WEEDING.

## POWDER.

1	-	tin for 12 galls. solution
19	-	" " 25 " "
6	-	" " 100 " "

Free Tins and Cases.

## LIQUID. 1-50.

1	-	gallon	-	2	-	drum free
1	"	-	3 6	-	"	9d. extra
2	"	-	6 6	-	"	1 6
5	"	-	14	-	"	2/6
10	"	-	25 6	-	cask	5

'EUREKATINE'—The successful fumigant.

'EUREKA' Insecticide, Lawn Sand, Hellebore Powder, Bordeaux Mixture, Worm Killer, Hayward's Summer Shade, &c.

SOLD BY AGENTS.

Full list with booklet, "Chemistry in Garden and Greenhouse," sent post free by makers—

**TOMLINSON & HAYWARD, Ltd., LINCOLN.**

ULSTER HORTICULTURAL SOCIETY'S

# Chrysanthemum Show

In BELFAST

10th & 11th November

ENTRIES FREE, AND CLOSE  
MONDAY, 2nd NOVEMBER

Schedules can be had from—

J. MacBRIDE, Secretary  
1 Adelaide Street, BELFAST

BEST . . .

# HOUSE

And . . .

# COALS

COKE FOR HORTICULTURAL  
PURPOSES

Special attention paid to Quality,  
Price and Prompt Delivery

Flower & McDonald

DIRECT COAL IMPORTERS

COKE AND CHARCOAL MERCHANTS

14 D'Olier Street, DUBLIN

Telegraphic Address: "DONALD, DUBLIN."

Telephone No. 43

# G. GIBSON & CO., F.R.H.S., Leeming Bar, BEDALE.

CATALOGUES OF HERBACEOUS OR HARDY PERENNIALS, FRUIT TREES, &c., FREE ON APPLICATION.

TERMS—Carriage paid on Prepaid Orders over 3/- only, except plants in pots and Fruit Trees. Anyone paying Carriage extra plants added of more value than cost of carriage. Mention this paper.

12 Choice Saxifrage, named, 4/- and 5/- 12 Giant Polyanthus, all colours, 1/3. Gibson's Blood-red Wallflowers, large plants, 1/- doz., 7/- 100.

NOW IS THE TIME TO PLANT GIBSON'S MAGNIFICENT DOUBLE SWEET-SCENTED CHINESE PÆONIES.

12 BLUSH AND LIGHT PINKS, 12

12 DEEP ROSE SHADES, 12/-

12 CRIMSON SHADES, 9/-

12 ROSE AND PINK SHADES, 12/-

12 WHITE, CREAM AND SAFFRON, 15/-

The whole collection of 60 vars., all three year-old flowering roots, real good stuff, for 55/- Carriage paid for cash, or 6 varieties added if customer pays carriage.

12 Grand Pæonies, unnamed, all distinct, 7/6.

ROSES.—We grow over 50,000 Rose Trees annually, including all the recent and best varieties, see Catalogue Roses. Our Famous Yorkshire Crown North Country Roses cannot be beaten for quality or the wonderful results they give.

Note the following unsolicited Testimonial:—"October 10th, 1908, St. Ives, Upper Norwood, S.E. Gentlemen,—I have great pleasure in stating that the Roses you sent me last year have done splendidly; they are fine bushes now, and have produced quantities of large and beautiful blooms. Many friends have seen the bushes, and could scarcely believe that they were planted only last autumn. Yours truly, M. B. S."

GRAND COLLECTION OF 60 HYBRID PERPETUAL ROSES, best for Exhibition purposes or Garden Decoration, strong trees, 35/-, including 6 other vars., gratis. Extra strong specially selected trees, 42/-, carriage paid. If the buyer pays carriage other 6 strong trees added in place of carriage.

We only wish you to give our trees a trial, they give satisfaction and will speak for themselves.

18 SPECIAL VARIETIES OF ROSES FOR MASSING.

Faroline Testout, bright satin rose	7/- doz.
Frau Karl Druschki, grandest pure white	8/- "
Fisher Holmes, splendid deep crimson	7/- "
Hugh Dickson, brilliant crimson	10/- "
Cruss an Teplitz, scarlet crimson in clusters	9/- "
Mme. Abe Chatenay, carmine rose shaded salmon, the description cannot do justice to this lovely rose	10/- "
La France, clear, silvery rose, an old favourite	7/- "
Liberty, brilliant velvety crimson, grand	9/- "
Killarney, flesh, shaded white, suffused pink	9/- "
Lady Quartus Ewart, full pure white, opens well	10/- "
Marquise Litta, carmine rose, vermillion centre	7/- "
Marquise of Salisbury, bright velvety red, dwarf, free	9/- "
Mrs. W. J. Crant, imperial pink, magnificent flower	7/- "
Viscountess Folkestone, creamy white, shaded flesh	9/- "
Bardou Job, single, brilliant glowing crimson	9/- "
K. A. Victoria, fine primrose colour, grand form	10/- "
Mrs. John Laing, rosy pink, deep, globular	7/- "
Homere, rose, salmon centre	10/- "

One of each of the above 18 vars. for 15/-.

MAGNIFICENT CLIMBING ROSES.

1/- each, except where priced.

For PILLARS, PERGOLAS, and ARCHES.

Ards Rover, crimson	Reine Olga de Wurtemberg, red
Aglaia, canary yellow	Crimson Rambler
Amadis, crimson, 9d.	Dorothy Perkins, pink
Blush Rambler, apple blossom	Euprosine, pink
Climbing C. Testout, rose	Flora, bright rose, 1 d.
Climbing White Pet, pure white	Cracilis, clear rose, 9d.
Lady Gay, cherry pink, 1 6	Cruss an Teplitz, crimson
Leopoldine d'Orleans, white	Queen Alexandra, rosy pink
tipped red, 9d.	Ruga, pale flesh, 9d
Mme. Alf. Carriere, white, extra	Tea Rambler, coppery pink
Pink Rover, pale pink	Thalia, pure white
Pauls' Carmine Pillar, rosy carmine	The Garland, white, 9d.
	Conrad F. Meyer, silvery pink, 9d.

The above 21 vars., all named, for 20/-

APPLES, Pyramid Trees for Small Gardens.—Eating and Cooking.—12 splendid varieties for 21/-.  
FRUIT TREES } Trained Trees, grand stuff, 2/6 and 3/- each.  
PLUMS, in extra good Trees, 1/6 and 2/6 each. Trained Trees for Walls, 2/- and 3/- each.

## Reports of Shows—*continued.*

Allington Pippin were remarkably strong classes, the chief prize winners being L. A. Beamish, S. Bowles, the Misses Pike and Lady Bandon. For culinary apples Lord Derby, Warner's King, Peasgood Nonsuch, The Queen, Lane's Prince Albert, Bramley's Seedling, Annie Elizabeth and Mere de Menage were remarkable for size, colour and large entries in each class. J. F. Williamson, M. Enright, M. Hennerty, Dr. Osburne, F. Hall, the Misses Pike and Lady Scott were among the chief prize takers. Collections of apples were remarkably fine, S. Bowles, Dr. Osburne, L. A. Beamish, and the Misses Pike winning prizes with large fruit of grand colour.

Pears were only shown in limited numbers, but then they are generally a bad crop this year, L. A. Beamish, Mr. and Mrs. Lane, A. M'Ostrich, Sir R. W. P. Fitzgerald and Lady Scott winning the chief prizes.

Fruit in packages I was much disappointed with, as, with the exception of those from Mr. L. A. Beamish, which were fair, all the other competitors' packing left very much to be desired.

Vegetables were largely shown, and generally of good quality, onions being remarkably fine, but parsnips and carrots very coarse. Beet and celery were not cut by the judge—a mistake, I think, in strong competition. Potatoes were very strong classes, many grand dishes being shown. W. T.

### Naas.

In connection with the agricultural show held by the North Kildare Farming Society on October 14th, a number of classes were provided for fruit, flowers, and vegetables, and though the season in this county has been unfavourable for fruit and vegetables, both quantity and quality were more than fair. The chief prize-

winners for vegetables in the open classes were Colonel Hon. C. H. Crichton, S. J. Brown and Lady Mayo, while in the open fruit classes Rev. Canon Sherlock, A. L. Dempsey, Lady Mayo, H. V. Winder and V. C. de Hughes won most of the prizes. In the confined classes M. Hamon and W. Hayton staged grand vegetables, winning most of the prizes.

Mrs. Harry Farrell won for early flowering chrysanthemums, a grand vase of a deep purple coloured variety named Rubio influencing the judge, Mr. J. L. M'Kellar, not a little. W. T.

### Piltown.

THE above fruit show was held in the Town Hall, Waterford, on the 6th and 7th October. The various exhibits were really meritorious, and altogether an advance on the previous show held in Piltown last year.

In looking through the numerous exhibits in the fruit classes it was difficult to single out anyone for special mention. Reference, however, must be made to the fruit staged by Mr. Baker, gardener to Lady Clara Fitzgerald, Newmarket-on-Fergus, which was well above the average, and finely coloured. The fruit in the class for small farmers deserve a word of praise; the judges commended highly on the uniform excellence of the exhibits in this class. Mr. A. G. Bowers, Silver-spring, Piltown, secured a great number of prizes, the superior staging of his fruit being very noticeable.

The judges were Messrs. F. W. Moore, Wm. Tyndall, Charles Langley and G. S. McDonald.

The "first prize" winners were (1) Dessert Apples—Richard Dalton, Jamestown, Piltown; Lady Clara Fitzgerald, Newmarket-on-Fergus; John Kirwan, Cookstown, Piltown; D. M'Grath, Castletown, Carrick-on-Suir; A. G. Bowers, Mooncoin. (2) Cooking

**SLUGS, WIREWORM & C.**  
**DESTROYED & PLANTS INVIGORATED**  
By a Dressing of "ALPHOL." A valuable Manure which destroys Insect pests in the soil without injury to the plants. Try it now. 28 lbs. will dress 250 square yards, 7 lbs., 2/-; 14 lbs., 3/-; 56 lbs., 8/6; 1 cwt., 15/-. Every enquiry welcomed.  
**BOUNDARY CHEMICAL CO. LTD. CRANMER ST. LIVERPOOL**

**IF YOU HAVE A GREENHOUSE**  
Why not heat it during the Cold weather? The cost is small. Send a post card for Catalogue to  
**CHAS. TOOPE (F.R.H.S.) & SON.**  
Heating Engineers. STEPNEY SQUARE, LONDON, E.  
TELEGRAMS: TOOPES' LONDON. TEL. NO. 5427 EASTERN.

**CHEALS'** 110 ACRES. FRUIT TREES.  
ORNAMENTAL TREES.  
SHRUBS OF ALL KINDS.  
GARDEN SEEDS. **CHEALS'** BULBS AND  
FARM SEEDS. **CHEALS'** PLANTS.  
LANDSCAPE GARDENERS.  
GARDEN ARCHITECTS, &c. **CHEALS'**

London Office or this department :—  
53 VICTORIA STREET, WESTMINSTER.

*Booklet on Garden Making Post Free.*  
*Catalogues Post Free.*

**J. Cheal & Sons,** Lowfield Nurseries,  
Crawley, Sussex.

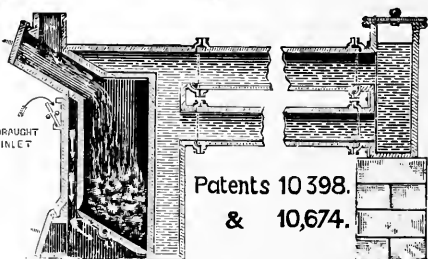
## The Boiler for Amateurs

### KINNELL'S SILVER MEDAL "HORSE-SHOE."

Will burn from 10 to 20 hours. Over 20,000 in use.

Awarded 2 Gold Medals by Botanical Society.

**CHEAPEST  
BECAUSE  
BEST.**



Patents 10 398.  
& 10,674.

Illustrated Catalogue, Plans, and Estimates free on receipt of particulars to—

**CHAS. P. KINNELL & Co., Ltd.**  
65 & 65a Southwark St., LONDON, S.E.

## Reports of Shows—continued.

Apples—Wm. Murphy, Whitechurch, Carrick-on-Suir; Col. V. Stuart, Castletown, Carrick-on-Suir; Earl of Bessborough, Piltown; A. G. Bowers, Mooncoin; Thomas O'Donnell, Tinakelly, Piltown; Mrs. J. Walsh, Kilmanahan, Piltown; Mrs. McMahon, Ballycalla, Newmarket-on-Fergus; James Dunne, Owing, Piltown; Richard Dalton, Jamestown, Piltown; Lady Clara Fitzgerald, Newmarket-on-Fergus; Lady Annally, Gowran Castle, Gowran. (3) Collection of Apples (amateurs and farmers only)—Wm. Coffey, Crowhill, Newmarket-on-Fergus. (4) Collection of Apples (cottagers and small farmers only)—John Lawlor, Clogga, Mooncoin. (5) Largest Apple (one fruit only)—L. Dowling, Piltown.

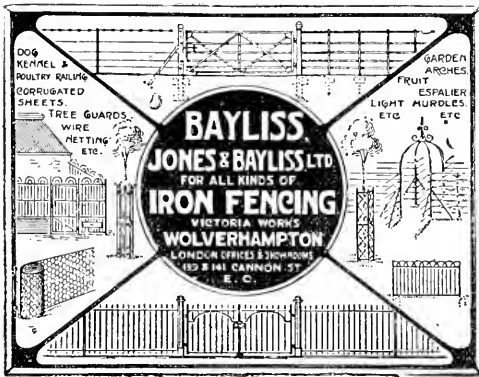
In the nurserymen's section Messrs. Jones, of Gowran, had a fine stand of fruit and vegetables, backed up by typical specimens of fruit trees suitable for immediate planting. Messrs. R. Fennessey & Son, Waterford, had a similar exhibit. A choice collection of conifers, heaths, and flowering and evergreen shrubs was staged by William Power & Co., Waterford. This firm also showed fruit and farm produce, amongst the fruit being a dish of Charles Ross apples, which appeared to be the handsomest dish of fruit in the show. The nurserymen's exhibits made a fine display, and they are deserving of every recognition for their material support. Mr. Kerry, Piltown, showed an excellent lot of bee products, which demonstrated what can be done by intelligent work brought to bear on this industry. Home-made jams and jellies were an interesting and instructive feature, and were much admired by the public.

The Piltown Society and their energetic secretary, Mr. Dearnally, have no reason to feel discouraged as a result of their efforts. The full results of their enterprise cannot be seen just yet, but its success is assured, nevertheless.

G. D.

## A 'Timely Reminder.

GREASE-BANDING as a protection against ravages of winter moth. Messrs. McDougall Bros., of Manchester, send us a sample of their grease and "grease-proof" paper for the use of fruit growers. Our readers know that from October to December the pupæ of the winter moth hatch out in the soil, and that while the males have well-developed wings, the females are practically wingless, and can only reach the boughs of the tree by crawling up the trunk. After mating the eggs are laid either at the base of the flower buds or in the cracks of the bark, where they remain in security until they hatch out into hungry caterpillars in March or April. The object of grease-banding is, of course, to lay a trap to ensnare the upward crawling female, and the Messrs. McDougall give the following directions for carrying out the "plan of campaign":—1. Affix the grease-band early, so that the first moths which emerge will be caught; the bands should be in position early in October. 2. Keep the bands on and in good working order up to April, so as to catch the March moth when it emerges. 3. Use a good grease and freshen it up with another application when required. Put only a *thin* coating of grease on—evenly spread—so that it will not run. 4. Never apply grease direct to the trees, always apply it on grease-proof paper bands. Use bands about nine inches wide, and leave a clear inch without grease at the top and bottom of the paper. 5. When grease bands are applied to old trees with rough bark the band cannot lie close to the tree all round, and crevices will be left enabling moths to crawl under the bands. In such cases the lower end of the band should be plastered round with clay. 6. Where young trees are staked either the tree should be banded above the point where the stake is tied to the tree or the stake must be banded in addition to the tree.



Get our Price List, well worth having.

THE SENSATION OF LAST WINTER.

Our Celebrated **"G. Brand"** Grained Clogs

(Lined with Thick Felt throughout).

Are still on the Market, and the sale is enormous. TRY THEM AT ONCE.

Keenest price known. Only **3/6** Postage paid right to your door.

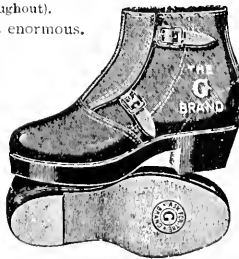
Any size: 3, 4, 5, 6, 7, 8, 9, 10, 11, 12. Ladies' or Gentlemen's.

DAMP FEET means an illness unless Clogs are worn.

ONLY FROM—

John Greenlees (Manufacturer of the "G. Brand" Clogs.  
4 Wellington Street, GLASGOW.

Praised by all our Customers in Great Britain.



200 Highest Awards: Gold Medals from all the Principal Exhibitions.

## PURE ICHTHEMIC GUANO.

The Most Reliable, The Richest Food, and the Most Natural Fertiliser.

Supplied in Tins and Bags, 6d. to 20/- Carriage paid on quantities of 28-lbs. and upwards.

**FAME'S FERTILISER.**  
Swift, Safe, and Sure.

Supplied in Tins and Bags, 6d. to 20/- Carriage paid on quantities of 28-lbs. and upwards.

May be obtained from the principal Nurserymen, Seedsmen, Florists and Chemists, or DIRECT OF—

The Sole Proprietors and Manufacturers,  
**WM. COLCHESTER & CO.,**  
IPSWICH, England.



## Improved BEATRICE GREENHOUSE BOILERS.

Complete Apparatus from 75s.

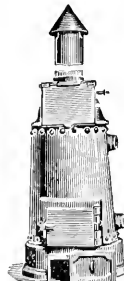
A modern success. Great improvement over old-type boilers. The "Beatrice" makes greenhouse work a pleasure. One stoking for the day, one stoking for the night. Even draught, even temperature. Guaranteed double the sale of any other boiler. To intending purchasers

List Post Free.

Easy Payments Arranged.

**JAS. CHEW & CO.,**

Brookhouse Iron Works,  
BLACKBURN, LANCs.



## Catalogues.

**BULB CATALOGUE.** W. Tate & Co.—A descriptive list of all the popular kinds of bulbous plants, with cultural notes and several illustrations. In a note about tulips the compiler says that "when planted thickly in shallow boxes of well-decayed manure and leaf-mould, and forced in gentle heat, early tulips are exceedingly useful to transfer, when coming into bloom, to hanging baskets, vases, jardinettes, &c."

**ROSE CATALOGUE FOR 1908-09.** Alexander Dickson and Sons, Ltd., Newtownards.—This handsome catalogue, clearly printed on plate paper, and illustrated with several full-page coloured plates, ought to be in the hands of all rose-growers. In the forefront two pages are devoted to descriptions of this firm's new pedigree seedling roses introduced during the current year, one of which (Florence Edith Coulthwaite) adorns the brilliant cover of the booklet. Following this is an additional list of the new Continental and other roses of 1908. The bulk of the catalogue is taken up with very useful lists of all the more important roses in cultivation. Following the name in each case is given the name of the raiser and date of introduction, habit of growth, and a short description of the flowers. A page is devoted to brief but valuable hints on the general culture of roses.

**THOMAS WILLIAM ROBINSON, Ltd.,** Heating Engineers, Stourbridge.—This is a neat and abundantly illustrated catalogue of heating appliances, ventilating gear, pumps, and other garden utensils. In addition to the ordinary trade lists, useful notes and tables on the proper use of boilers, flues, &c., and quantity of pipe required to maintain a given heat in given air-spaces, are set down in this useful booklet that might well be kept for reference by the intelligent gardener.

**DRUMMOND'S NURSERY CATALOGUE** includes descriptive lists of fruit trees, roses, and general nursery stock. Notes on the cultivation of fruit trees are given, as also a useful table showing the number of trees required per acre under different systems of planting. The catalogue is conveniently arranged, nicely printed, and well illus-

trated. One of the illustrations is reproduced on page 166, and may be taken as a specimen of the others in this attractive publication.

**IRISH ROSES, FRUITS, ORNAMENTAL TREES, SHRUBS, FOREST TREES, &c.** William Watson and Sons, Ltd.—A full descriptive, well-arranged catalogue, extending to 42 pages, and enclosed in a tasteful wrapper. The space devoted to roses fills 19 pages, and the information given cannot fail to interest all lovers of the popular "flowers." Especially useful to amateurs will be the clear instructions as to pruning given under the different groups. We commend to the attention of owners of homes of taste the section on climbing roses, pages 20 to 23. In the fruit section all the popular varieties are listed and described. The planting of shrubs and trees is becoming more and more popular in Ireland, and intending planters will find a wide choice among the many useful subjects detailed in these pages.

**CHARLES TOOPE & SON,** Heating Engineers, Stepney Square, London.—Now that the dull, cold season of the year is fast approaching, those who are anxious to keep up a winter display of greenhouse plants will be overhauling the heating arrangements, or in the case of the humble amateur, introducing simple devices for maintaining sufficient artificial heat to at least "keep out the frost." In either case the illustrated little catalogue under review will be well worth consulting, as apparently the man with the shallow, as well as the man with the long, purse is considered by this firm. Amateur gardeners should always remember that it is cold, accompanied with dampness, that injures his greenhouse plants, and that even a little artificial heat tends to increase the power of the air to hold moisture, and thus prevents its condensation upon the foliage.

**NOVELTIES.** James Veitch & Sons, Ltd.—Gardeners will be interested in this catalogue—the latest publication of a firm celebrated for introductions of new plants. The novelties now offered have been obtained "mostly from high altitudes in the mountainous regions of Western China and the borders of Tibet." It is printed on plate paper, and beautifully illustrated. Interested readers should write to Chelsea for a copy.

**WEEDS DESTROYED GRASS INVIGORATED**

ON LAWN, TENNIS COURTS, GOLF, & BOWLING GREENS &c.

**"CLIMAX" LAWN SAND**

**THE BEST DRESSING FOR WEEDY OR IMPOVERISHED LAWNS.**

**TRY IT NOW.**

Sample tins, 1s., 2s., and 3s. 6d.; or 25 lb. to dress 100 square yards. 6s. per cwt.riage paid.

**Write for our Catalogue of Garden Helps.**

**BOUNDARY CHEMICAL CO. LTD. CRANMER ST. LIVERPOOL**

**Vegetable, Flower, and Farm Seeds**  
From the Finest Stocks and Strains in Cultivation.  
*Catalogue Post Free.*

**Browne, Thompson & Co.,**  
Seedsmen, CORK.  
Telegrams—"THOMPSON, SEEDSMAN, CORK."

**P. J. BYRNE,**  
Horticultural Builder & General Contractor,  
32 SHELBOURNE ROAD, DUBLIN.



Greenhouses and Conservatories built to order and erected in any part of Ireland at lowest prices.

Garden Frames and Lights very cheap.

ESTABLISHED 1830.

Established 1896. Telephone 107 Y.  
Window Cleaners, etc., to Shops, Offices, Warehouses, Private Residences, etc., Dublin and County.

**'DISH'S,'** House, Shop, and Office Cleaners, Linewashers, Whiteneers, and Glazing Contractors.

**6 Fleet Street, DUBLIN.**

DISH'S Cleaning and Disinfecting Composition will clean and disinfect your House, Shop, and Office throughout (without soap). 3s. 6d. Gallon Can delivered.

# Miscellaneous Section

**TO-DAY! AND FOR YEARS AND YEARS PAST** the "**XL-All**" Specialities are and have been the best on the Market. Where is the gardener who does not pin his faith to one or the other of these celebrated Insecticides or Fertilisers? "**XL-All**" **Fertiliser** has pleased all who have used it this season. The sales of "**XL-All**" **Fumigator** prove that it is more popular than ever. "**XL-All**" **Liquid Nicotine Insecticide** is always spoken of by gardeners and growers as the most deadly to Mealy Bug, Thrip, &c. "**XL-All**" **Winter Wash**, for dormant trees, acts like magic, clearing the trees and bushes of all insects' eggs, moss, and fungoid growths. "**XL-All**" **Lawn Sand**, a weed eradicator and fertiliser for weedy and poor lawns. "**XL-All**" **Weed Killer**, used once a year; no weeds can live. Please ask your Nurseryman, Seedsman or Florist for a copy of my small pink list, giving particulars of these and many other "**XL-ALL**" Preparations, which can be obtained from the Horticultural Trade throughout the World.

**G. H. RICHARDS,**

MANUFACTURER AND PATENTEE,

234 Borough High Street, LONDON, S.E.

## THE SCOTCH FLAME FLOWER

(*Tropæolum Speciosum*.)

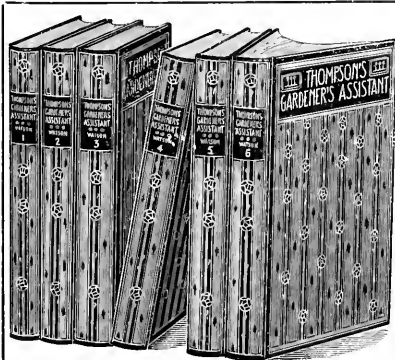
I can supply **extra strong** pots of this popular climber at 5/- per dozen, with directions for planting. **100** different named **Rockplants**, for any position my customer likes to name, for 28/6; **50** for 14/6; **25** for 7/9; from pots or ground. Send for List.

**Wood's Plant Club Label** is the best permanent metal label for Bulbs and Border Plants, Shrubs, &c.

**J. WOOD, Boston Spa., S.O., YORKSHIRE.**

**IF YOU HAVE A GLASS ROOF THAT LEAKS,** a Conservatory to repair, or any kind of glazing work to be done, **CARSON'S PLASTINE** will save money, time, worry and annoyance consequent on the use of ordinary putty which cracks, crumbles, and decays. It saves the expense of constant renewals. Carson's Wood Preservative in green and brown, for Palings, Trellis Work, &c. The best paint for Greenhouses is "**Vitrolite**." Write for Catalogue. **CARSONS, 22 Bachelor's Walk, Dublin.**

**J. NESS & CO., 12 Sandside, Scarboro', Garden and Lawn Tennis Boundary Net Makers; also Rabbit, Stagk, Fishing, Cricket, and other Nets.**



**4/-**

This standard work, now edited by **W. WATSON, F.R.H.S.,** Curator of Kew Gardens, is sent to any address in Ireland, post free, on receipt of 4s. Balance of price payable by 11 monthly payments of same sum. Most complete authoritative and practical book published. Prospectus free.

**THE GRESHAM PUBLISHING COMPANY,**  
34 Southampton Street, LONDON, W.C.

**AUTO-SHREDS** Is CERTAIN DEATH to all Pests infesting plants under glass, &c. Simple to use, no apparatus required. In Boxes to Fumigate 500 cubic feet, 4d.; 1,000 cubic feet, 6d.; 10,000 cubic feet, 3s. 6d. each. Obtained of Seeds-men and Florists; if unobtainable apply direct—

**WM. DARLINGTON & SONS,**  
Wholesale Horticultural Sundriesmen,  
HACKNEY, LONDON, N.E.



Trade Terms upon receipt of Card.

**FOR SALE.—RARE HERBACEOUS PLANTS,** 3d. each. Address "**PLANTS**," c/o **EASON & SON, LTD.,** Advertising Agents, 40 Lower Sackville Street, Dublin.

**HARDY BORDER CARNATIONS AND PICOTEES.**—Strong, healthy and well-rooted plants. 200 varieties. Descriptive List free. Prices Reasonable.—12 distinct hardy border varieties, named, 2s. 6d.; 12 distinct choice varieties, to include yellow grounds, 3s. 6d.; 50 choice **CARNATIONS** and **PICOTEES**, in 25 distinct varieties, 12s. 6d.; 100, 21s. **CARNATIONS**, named to colour, equal to named varieties, for cutting or massing, extra fine flowers and good, strong growers, 12 plants, 12 distinct colours, each named, 2s. 3d.; 50, 8s. **BORDER PINKS.**—Nice young plants, 12 distinct varieties, named, 1s. 6d. All carriage paid and satisfaction guaranteed.

**H. COLLENS, The Nurseries, STRETFORD, Lanc.**

**SLUGENE**—Stanly's Slugdeath Registered. Price, 6d., 1s., 2s., 4s. per Tin. Of Seeds-men, Nursery-men, General Stores, &c. The Royal Horticultural Society reports:—"This is the finest destroyer of slugs we have ever tried. Put on according to the instructions supplied, it kills all the slugs with no injury to the plants." Wholesale from—

**H. STANLY & CO., Ltd.,**  
69 FENCHURCH STREET, LONDON.

**WELLS' Catalogue of Chrysanthemums, Pentstemons, Michaelmas Daisies, and Phlox, now ready.** Sent post free on receipt of post card. For Early Single Chrysanthemum and Pentstemon Seed, see page 50, "**THE CULTURE OF THE CHRYSANTHEMUM.**" By **W. WELLS.** Post free, 1/6  
**W. WELLS & Co., Merstham, SURREY.**

## 300 ACRES TO SELECT FROM

Trees, Shrubs, Conifers, Rhododendrons, Heaths, Azaleas, Kalmias, Ledioms, Fruit Trees, Roses, Herbaceous Plants, &c., in first-class quality and variety.

**SPECIAL PRICES AND CATALOGUES ON APPLICATION.**  
Inspection Invited.

**ISAAC MATTHEWS & SONS, Limited,**  
MILTON, STOKE-ON-TRENT.

## TO LANDSCAPE GARDENERS.

### PLANS WANTED

THE LURGAN URBAN COUNCIL are desirous to lay out 73 acres as a Public Park, and offer a prize of £25 for the Plan which, in their opinion, is the most suitable to their requirements. The Plan accepted will become the property of the Council.

Competitive Plans must be lodged with me on or before 12th December, 1908. The grounds may be examined any week-day on application.

October, 1908.

**F. W. POLLOCK,**

Clerk of Council.



## Best Quality Bulbs . . Best Hardy Perennials.

Our Bulbs are First Class Selected Stuff and Extraordinary Value for Money. Give us a Trial Order. You will be surprised at the Value. Our Plants are strong Transplanted Stuff from Northern Climate, which do well anywhere.

### BULBS.

50 Double daffodils	1/-	8 Hyacinths, red,	
50 Double daffodils,		white or blue	1/-
extra large	2/-	100 Ixias	1/-
50 Sir Watkin nar-		100 Sparaxis	1/-
cissus	2/3	50 Gladioli—The	
50 Horsfieldii	1/9	Bride	1/3
50 Ornatus	1/-	50 Eggs and bacon	
100 Princeps	1/6	narcissus	1/6
50 Double white	1/-	50 Butter and eggs	1/3
50 Parrot tulips	1/3	50 Barii conspicuus	1/6
50 Mixed tulips	1/-	50 Empress	3/-
50 Extra special		50 Emperor	2/6
single early tulips	1/6	100 Pheasant eye	1/3
50 May flowering		50 Giant snowdrops	1/-
tulips	1/6	100 Crocus, white,	
50 Darwin tulips	1/9	blue or mixed	1/-
50 Double tulips	1/6	100 Crocus, yellow	1/-
100 Spanish iris, white,		100 Spanish iris, mixed	0/9
blue or yellow	1/-	50 Mixed early glad-	
100 Spanish iris in 10		iolii	1/-
named kinds	1/3	50 White tulips	1/6
12 Mixed hyacinths	1/-	50 Yellow tulips	1/9
12 Named hyacinths	1/9	50 Red tulips	1/9

### PLANTS.

50 Myosotis	0/6	25 Pansies, blue	0/6
12 Gaillardias	0/6	25 Pansies, giant,	
20 Coreopsis grand	0/6	mixed	0/6
25 White foxgloves	0/6	20 Viola—Mauve	
25 Spotted foxgloves	0/6	Queen	0/6
20 Alyssum Sax.		25 Sweet Williams	0/6
compacta	0/6	20 Lupins, white or	
3 Blue primroses	0/6	blue	0/6
12 Hybrid primroses	0/6	20 Lupins, mixed	0/6
15 Mixed polyanthus	0/6	6 Lupins Tree—	
25 Iceland poppies,		Snow Queen	0/6
yellow, white,		12 Scarlet geums	0/6
orange or mixed	0/6	6 Hardy maidenhair	0/6
12 Iceland poppies,		12 Gypsophila pani-	
new, excelsior		culata	0/6
strain, lovely		12 Border carnations	0/6
new colours	0/6	20 Marguerite car-	
12 Catanache cor-		nations	0/6
rulea	0/6	6 Double holly-	
6 Michaelmas		hocks, white,	
daisies	0/6	blush pink, sal-	
12 Winter cherry	0/6	mon, cream or	
8 Double hollyhocks	0/6	yellow	0/6
10 Single hollyhocks	0/6	25 Canterbury bells,	
6 Delphiniums	0/6	white, rose or	
25 Brompton stocks	0/6	mixed	0/6
25 Pansies, white	0/6	20 Canterbury bells,	
25 Pansies, yellow	0/6	cup and saucer	0/6

50,000 wallflowers, either Blood Red, Golden King, Eastern Queen, Harbinger, Ruby Gem, Primrose Dame, or Vulcan—50, 1/3; 100, 2/-; 250, 4/6; 500, 8/- Carriage paid. All fine transplanted stuff.

All Orders for Plants from 3s., Bulbs from 5s., Carriage paid. For less amounts—Bulbs, 6d.; Plants, 4d. extra. Satisfaction or money returned.

**R. S. BANKS, . . HAZEL HOUSE, . .**  
SNAINTON, S.O., YORKS.

## Salva-Fruta.

FOR SPRAYING FRUIT TREES IN WINTER.

All Fruit Trees should be treated with this preparation. It effectively

destroys every vestige of  
MOSS, LICHEN, AND GREEN SLIME,  
as well as the eggs of  
MOTHS, APHIDES, RED SPIDER, &c.

Salva-Fruta is a Powder, and is easily dissolved in cold water. It is put up in canisters of 1 lb., 2 lbs., 4 lbs., and 10 lbs. each.

Full Directions and Prices can be obtained from the Manufacturers,

**The United Alkali Co., Ltd.,**  
GREENBANK WORKS,  
ST. HELENS, LANCASHIRE.

Or from all the principal Seedsmen in the United Kingdom.

**David Henry, Carlow,**  
Pembroke Avenue Nursery,  
OFFERS . .

**Choicest Fruit Trees.**—Apples, Pears, Cherries, Plums, bushes from 1/-, standards from 1/6; trained, 2/6 and 3/6 each; Gooseberries and Currants, 3/6 doz. Fruiting Trees. Catalogues free.

**Choicest Roses.**—Crimson Rambler, Dorothy Perkins, Lady Gay, Wedding Bells, 1/- each; one each 3/6. Climbing Tea Roses—Dijon, Richardson, Reve d'Or, Berard, Niphetos, &c., 1/-; 6, 5/6.

**Choicest Dwarf Roses,** for Beds, all shades, 12, 7/-; 6, 3/6. 3 China Roses, different, 1/6.

**Choicest Shrubs** for Beds, Pots, Window Boxes, &c.—Golden Euonymus, Laurestinus, Aucuba, Golden Privet, &c., 12, 4/-; 6, 2/6.

**Choicest Climbing Plants.**—White Jasmine, 6d. each; Cotoneaster, red berries in winter, 9d., 1/-, 1/6 each.

**Choicest Varieties of Wallflowers.**—Separate or assorted, 36, 1/3; 100, 2/9. Forget-Me-Not, Dissitiflora and Victoria, 20, 1/3; 50, 2/-. Aubretia, 25, 1/3. Double Arabis, 18, 1/6.

**Choicest Carnations,** with colour marked, 12, 3/-; Choice mixed, 12, 2/6.

**Choicest Canterbury Bells.**—Cup and Saucer, 30, 1/3; Sweet Violets, Perle Rose, Grandiflora, Avellan, 12, 1/6; Iceland Poppy, white, yellow, orange, 12, 1/3; Large Scarlet Poppy, 12, 1/3.

**Choicest Pansies.**—Trimardeau, Bugnots, Cassiers, Odiers, &c., 20, 1/3, 50, 2/6; Sweet Rocket, white and purple, 12, 1/3; Agrostemma, white, very showy, 6, 1/3.

**Choicest Hardy Perennials,** 2 to 3 ft., for cutting, 12 varieties, 3/-; 1 to 1½ ft., 12 varieties, 3/-; Choice Rock Plants, 12 varieties, 3/-.

ORDERS 2s. 6d. AND UPWARDS FREE.

# FRUIT TREES

OF ACKNOWLEDGED FINEST POSSIBLE QUALITY.

About 25,000  $\frac{1}{2}$ -Standards for sale this season.

Every Tree winter-washed, carefully pruned, trans-  
— planted, and splendidly rooted. —

SPECIAL OFFER of 6,000  $\frac{1}{4}$  and 5 year  $\frac{1}{2}$ -Standards, extra strong,  
big heads, fruiting trees. Apples, Pears and Plums in best  
sorts. Lists on application. 18/-, 20/- dozen. Worth double.

TRAINED APPLES, PEARS, PLUMS and CHERRIES.

Over 3,000 for sale. Magnificent Stuff.

2/-, 2/6, 3/6 to 5/- each. Trade supplied.

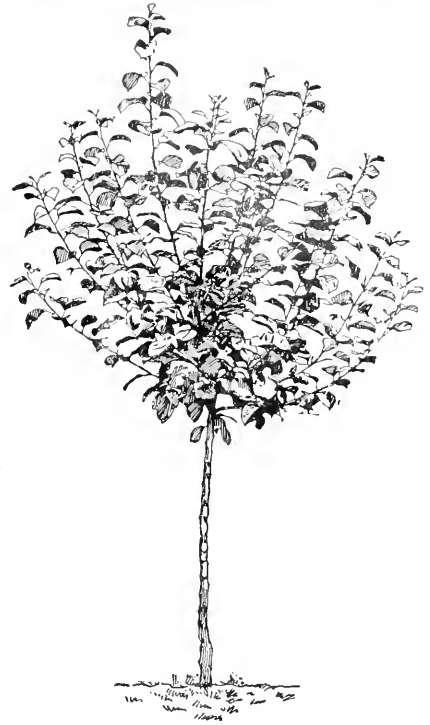
None but the most popular and best varieties offered in each Section.  
I cordially invite inspection of my stock. All I offer are growing  
in my nurseries.

FOREST TREES, SHRUBS, HEDGING PLANTS, &c.,  
in large quantities.

SPECIMEN TRANSPLANTED SHRUBS a great speciality.

*Lists Free. Correspondence Invited.*

**JONES, F.R.H.S.,** FOREST LODGE NURSERIES,  
GOWRAN, CO. KILKENNY.



From a Photo of one of my 3-year-old trees growing  
in the Nursery. This is my type of  $\frac{1}{2}$ -Standard.  
Telegrams: "JONES, GOWRAN."

Beautify your Gardens by planting —————

Telephone 556.  
Telegrams: "DRUMMONDS, DUBLIN."

## DRUMMOND'S FLOWER BULBS,

HOME GROWN AND CONTINENTAL.

Collections for indoor and out,

5/6, 10/6, 21/-, 42/-, 63/-.

☞ All orders of 5/- value and upwards

Carriage Paid.

Fruit Trees, Forest Trees,

Roses, Shrubs,

A most comprehensive and  
well-grown stock.

☞ Our Trees, being grown in Scotland, are exceptionally  
hardy and well-rooted, and consequently succeed much  
better than those grown in more southern districts.

FULL DESCRIPTIVE CATALOGUES ON APPLICATION.

# W. DRUMMOND & SONS, LTD.

57 & 58 DAWSON STREET, DUBLIN.

**Planters of FRUIT TREES don't fail to plant . .**  
**BRAMLEY'S SEEDLING.**

**The most profitable Apple grown.**

**THE ROSE.** THE PEOPLE'S FLOWER.  
 THE NATIONAL FLOWER.

Every Garden must Possess Them.

All Strong and Home-Grown Plants.

**Notice the following Wonderful Bargain:—**

**COLLECTION "C," GARDEN ROSES.**—The finest selection of **25 Garden Roses** in dwarf plants possible for **13/6** (with Acme Labels, **16/-**), carriage and packing free for cash with order.

**350,000 FRUIT TREES of all kinds to select from.**

**A Grand Stock of Shrubs and Ornamental Trees.**

**Herbaceous Plants in great variety.**

Send for Catalogue No. 25, full of interesting information and cheap prices, post free on application to

**MESSRS. H. MERRYWEATHER & SONS, LTD.,** (Dept. T.)  
 Garden Specialists, **SOUTHWELL, NOTTS**

**FRUIT TREES IN ALL FORMS.**

Many thousands are being supplied yearly to Customers in all parts of Ireland, and are giving entire satisfaction . . .

Silver Medal awarded by the Royal Horticultural Society of Ireland for Collection of Fruit at Dublin Show, 1907 . . .

Silver-Gilt Medal awarded at the Royal Horticultural Society's British Fruit Show, held in London in October, 1908, for Collection of Hardy Fruit in Open Class for Nurserymen



**CORDONS**

A Speciality

Very large stock of **BUSHES, PYRAMIDS**

. . . and . . .

**TRAINED TREES**, on Specially Selected Fruiting Stocks . . . . .

**250,000 Trees to select from**

Customers ordering . through the post may rely on receiving as good trees as those personally chosen

Illustrated Catalogue and Cultural Instructions sent free on application . . . .

**W. SEABROOK & SONS, THE NURSERIES, CHELMSFORD**

# LAXTON'S FRUIT TREES

Many Thousands of Well Trained, Beautifully Rooted APPLES, PEARS, PLUMS, PEACHES, NECTARINES, APRICOTS, CHERRIES, FIGS, VINES, NUTS, GOOSEBERRIES, CURRANTS, RASPBERRIES, &c., &c.

AS . . .

CORDONS, PYRAMIDS, BUSHES, STANDARDS, FAN TRAINED, ESPALIER TRAINED, AMATEURS' STANDARDS, &c.

New fully Illustrated and Descriptive Catalogue Gratis.



**LAXTON BROTHERS, BEDFORD**

## Extra Size Trees for Avenue and Garden,

WITH GOOD STRAIGHT STEMS AND BUSHY HEADS, TRANSPLANTED 1907.

Acacias in variety, 8-10 ft., 10-12 ft., 2/6 to 5/- each.

Acers in variety, 6-7 ft., 7-8 ft., 8-9 ft., 2/6 to 5/- each.

Chestnuts, Horse, 8-9 ft., 9-10 ft., 2/- to 3/6 each.

„ Scarlet, 6-7 ft., 8-9 ft., 2/6 to 5/- each.

„ Spanish, 10-12 ft., 3/6 to 5/- each.

Elms in variety, 10-12 ft., 12-14 ft., 2/6 to 5/- each.

Elms, Weeping, 8-9 ft. stems, 3/6 to 7/6 each.

„ Golden, 9-10 ft. „ 3/6 to 5/- „

Limes, 6-7 ft., 7-8 ft., 8-9 ft., 10-12 ft., 2/- and 5/-

Laburnum, 6-7 ft., 7-8 ft., 2/- to 3/6 each.

Mountain Ash, 10-12 ft., 2/6 to 3/6 „

Poplars in variety, feathered for shelters, 7-8 ft., 8-9 ft., 1/6 and 2/6.

Sycamore, 8-10 ft., 10-12 ft., 12-14 ft., 2/6 and 5/- each.

Sycamore, variegated, 8-10 ft., 3/6 and 5/-

„ purple, 10-12 ft., 12-14 ft., 3/6 to 5/-

Thorns, double and single, 7-8 ft., 8-10 ft., 2/6 to 5/-; also

Splendid stock of Ligustrum ovalifolium, bushy, 8/-, 10/-, 12/6 per 100.

Laurels rotundifolia, 10/-, 12/-, 15/-, 25/- per 100; also

Roses, Fruit Trees, Herbaceous Plants, Creepers Conifers, and Flowering Shrubs, &c., in great variety.

Catalogues free on application to

## ALEX. DICKSON & SONS, Ltd.

ROYAL IRISH NURSERIES

OAKLEY PARK, BLACKROCK, CO. DUBLIN

SEASON 1908

# W. HORNE & SONS

World-wide  
Reputation

Noted Fruit Tree Growers

CLIFFE, nr. Rochester, Kent

All the best  
varieties in  
Cultivation

## RASPBERRIES

us

Superlative  
Perfection

Baumford  
Seedling

Norwich  
Wonder

Hornet (Rivers)

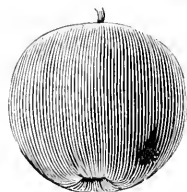
Carter's  
Prolific

and many others

Price:

1s. 6d. dozen;

5s. 100



200,000

## FRUIT TREES AND BUSHES

OF ALL KINDS, INCLUDING—

### 10,000 Maiden Apples on English Paradise.

The following popular: James Grieves, Ben's Red, Charles Ross, Cox's Orange, Allington's Pippin, Bramley Seedling, Lord Derby, Worcester Pearmain, Ecklinville Seedling, Newton Wonder, Norfolk Beauty, Blenheim Orange, Warner's King, Edward VII., Rival, Quarrenden, 6s. dozen; 40s. 100.

### Also a very fine lot of 30,000 Pyramid Apples, 2 and 3 year, on English Paradise.

Including Worcester Pearmain, Cox's Orange Pippin, James Grieve, Allington Pippin, Bramley Seedling, Warner's King, Houblon, Charles Ross, Beauty of Bath, and many others, 12s. doz.; 75s. 100.

### About 50,000 Half-standard Apples on Crab Stock, 2 and 3 year.

Worcester Pearmain, Cox's Orange Pippin, Bramley

Seedling, Newton Wonder, Allington Pippin, Lord Derby, Blenheim Orange, James Grieve, and many others, 12s. dozen; 75s. 100.

### 2 year Pears on Quince Stock.

Doyenné du Comice, very fine stuff indeed, 1s. 6d. each; 12s. dozen.

### Loganberry Plants from Layers.

Very fine stuff, 25 plants for 20s.

### 3 Year Pears on Pear Stock.

In Large Quantities.

Doyenné du Comice, Marie Louise, Conference, Louise Bonne of Jersey, Doyenné d'Été, Chalk, Duck's Egg, Dr. Jules Guyot, Red Lammas, Fertility, Williams, Souvenir du Congrès, Beurre Clairgeau, Pitmaston Duchesse, Jargonelle, Winter Nelis, Josephine de Malines, Beurre Diel, Windsor.

All one price - 10s. dozen; 60s. 100.

Write for our New ILLUSTRATED CATALOGUE now ready, to be had gratis.

# Mrs. GARDNER, F.R.H.S., PRIORY HOUSE, STROUD

KNOWN ALL OVER THE WORLD WHERE PLANTS, BULBS, AND TREES CAN BE SENT.

23rd SEASON.]

THOUSANDS UPON THOUSANDS OF TESTIMONIALS.

[23rd SEASON.

Mrs. GARDNER DOES NOT KEEP A NURSERY or sell plants locally; her plants and bulbs can only be obtained by ordering through the post, therefore the BEST PLANTS, &c., ARE NEVER PICKED OUT by personal applicants. NOW IS THE BEST TIME TO PLANT. The early planters are always successful gardeners. Everything in prime condition for removal. PACKED FREE and CARRIAGE PAID.

(ALL PACKED FREE). **BULB, PLANT, AND ROSE CATALOGUE POST FREE.** (ALL CARRIAGE PAID).

Remember, now is the best time in all the year to Plant Roses, Fruit Trees, Bulbs, and Perennial Plants of all kinds. Success Certain.

## ROSES.

**THE SENSATIONAL NEW DWARF ROSE, Madame Norbert Levavasasseur.**—As a pot-Rose for greenhouse or window it has no equal, for beds and borders it is simply a mass of crimson the whole of the season, producing such a grand, telling effect that once seen is not readily forgotten; it is very hardy, and will thrive in the poorest soil. Only grow about one foot high, and bloom so profusely as to entirely hide the foliage. The foliage is of a beautifully deep glossy green, and is never attacked by disease. It flowers in large clusters from June to November. It is always in bloom. This Rose will prove invaluable for bedding purposes and for pot culture. It has already obtained the five following Prizes, viz.:—Paris Exhibition (May), Large Silver Medal; Paris Exhibition (November), 1st Class Certificate of Merit by the National Horticultural Society of France; London (April), 1st Class Certificate of Merit, R.H.S. of London; London (June), 1st Class Certificate of Merit, National Rose Society; Orleans (August), Gold Medal, highest award with congratulations from the Judges. Now offered by me, price 1s. 6d. each; 3 for 4s.; 6 for 7s.; 12 for 12s. Packed free and carriage paid. Capt. Hume, Loch Fyne, writes Oct. 15, 1908:—"The Madame Norbert Levavasasseur you sent me made such a pretty border, I want two dozen more. They are still budding and flowering."

**RARE LOVELY ROSE, General Schablekine.**—See Dean Hole's reference to it on page 183 of his book, "Our Gardens." Lord Brougham describes it as "caring neither for cold, damp, sun, or mildew," and he declares "that if a law was passed that one man should cultivate but one variety of Rose, he should, without hesitation, choose General Schablekine as being without a rival, flowering continuously, with 100 blooms of equal merit on a plant." He says—"Of all Roses it is the most faithful and generous." 1s. 9d. each; 3 for 4s. 6d., carriage paid.

Miss M. SCARLE, Norwich, writing Nov. 1st, says:—"I am glad to tell you the General Schablekine Rose has done splendidly and has borne some lovely Roses. We are much pleased with it."

**THE VELVET CRIMSON BLACK ROSE.**—Probably the nearest to a real black Rose, magnificent lustre and texture, hardy, vigorous, and free bloomer, 2s. each; 2 for 3s. 6d., carriage paid.

**FRAU KARL DRUSCHKI.**—The sensational new snow white hybrid Perpetual Rose, hardy, free flowering, and superb formation of blossom. All will certainly grow this charming new Rose. The Queen greatly admired this grand new Rose at the National Rose Society's Show. 3 for 4s.; 6 for 7s. 6d.; 12 for 12s. Planted beside the velvet crimson-black Rose, the effect is grand. Two crimson-black and two F. K. Druschki for 5s., carriage paid.

**DOROTHY PERKINS.** A delightful new Climbing Rose, has already become a great favourite with all who have seen it in flower, producing, as it does, huge clusters of handsome soft pink flowers in the wildest profusion—in fact, quite a fountain of roses. 2 for 2s. 6d.; 4 for 3s. 6d.; 12 for 10s., carriage paid.

Extract from "THE GARDENER," January 18, 1908:—"If I were restricted to one Rose I would rather leave out all the other hundreds than Dorothy Perkins. In the first place, I know of no Rose so beautiful and yet so willing to do its utmost. This Rose will astound you by the vigour of its growth and the prodigality of its bloom. For sheer brilliancy it far outshone anything else in the garden at the time and made a wonderful display."

**6 LOVELY HYBRID PERPETUAL ROSES** (my gem selection).—This set is so lovely they should be in every garden; extra choice varieties, selected after growing hundreds. My customers have been simply charmed with this set. All labelled with name, and carriage paid, 3, 2s.; the set, 6, 3s. 9d.; 12, 7s.

**SPECIAL OFFER EXTRA LARGE ROSES.**—Four-year old trees, bushy, and abundance of fibrous roots, extra choice varieties, from pure white to rich velvet-crimson, abundant bloomers, and should be planted in the open at once. 6 all different, and named, 5s.; 12 for 9s. 6d., carriage paid.

## HYBRID PERPETUAL ROSES.

General favourites everywhere on account of their hardiness, abundant blooming qualities (being scarcely ever out of flower the whole season), and robust, vigorous constitution.

**Mrs. JOHN LAING.**—Rich, satiny pink, delicious fragrance; blooms constantly.

**MARCHIONESS OF LONDONDERRY** (New).—Ivory white, pointed globular; one of the grandest Roses yet offered.

**ULRICH BRUNNER.**—A beautiful hardy Rose in flower and foliage. The former is large and cupped, bright cherry-red and very fragrant. The flowers are borne on long flower-stalks almost devoid of thorns.

**BARONESS ROTHSCHILD.**—An exquisite shade of satiny pink.

**PAUL NEYRON.**—Imperial pink of the richest shade, large and beautifully formed, the largest Rose in cultivation.

**GENERAL JACQUEMINOT.**—Bright, scarlet-crimson, an abundant bloomer; large and fine double flower.

**MAGNA CHARTA.**—Bright pink, shaded with carmine, large and full. A magnificent Rose.

**ABEL CARRIERE.**—Purplish crimson, with black reflection, fiery centre, large and full.

**MRS. R. C. SHARMAN CRAWFORD.**—Deep rosy pink, outer petals shaded with pale flesh. A beautiful rose in every respect.

**PRINCE CAMILLE DE ROHAN.**—Deep velvet crimson-maroon, shaded scarlet, a magnificent dark Rose.

**LA FRANCE.**—Splendid satiny Rose; a constant bloomer; undoubtedly one of the best.

**CAPTAIN HAYWARD.**—Bright crimson carmine, an entirely distinct shade of colour, of perfect form and very sweet.

All the above Hybrid Perpetuals are strong, robust 2 year old trees, every one of which flowered abundantly this season. Any 3 for 2s. 6d.; any 6 for 4s. 6d.; the set of 12 (one of each) 8s. Carriage Paid.

**VERY SPECIAL OFFER.**—Bargain price. Climbing Roses, in grand variety; no need for bare walls and ugly places, they all can be made beautiful at a mere nominal expense. 6 grand climbing Roses, 3s.; 12 for 5s. 6d. These will flower in the wildest profusion anywhere and everywhere.

**PARROT TULIPS.**—A flower more bizarre, fantastic or grotesque would be hard to find. A bed or clump of them always attracts much attention. They are six, seven, and eight inches across, with petals toothed, horned, twisted, and waved, now loosely incurved, now spread flatly out like a star. Some are yellow, some are crimson, or again dashed, flaked or feathered with green, gold or scarlet. Fine to plant among shrubbery, or for bedding. They grow ten inches in height, and bloom just after the double Tulip. Very special offer, large stock, 25 for 1s. 6d.; 50 for 2s. 6d.; 100 for 4s. 6d.

**GIANT FRENCH ANEMONES.**—A grand new strain entirely eclipsing all other Anemones. The colours are most superb, through all the charming shades of heliotrope, mauve, blue, and purple, also white to deep rich crimson; blooms often 4 to 5 inches across. Perfectly hardy. Will be planted by millions when known. The one certain flower that will make the garden glorious in spring, 25 for 1s. 3d.; 50, 2s. 3d.; 100, 4s.; 250, 8s. 6d.; post free. A lady customer writes from Torquay thus:—"I have grown most kinds of Anemones for 15 years, but never saw any so beautiful, or had such a fine show as the Giant French Anemones purchased from you."

Mrs. CARD, Bognor, writing Nov. 8th, says:—"The Giant French Anemones I had from you have been splendid last spring and summer, and are now coming up again."

**ELWESII, THE GIANT SNOWDROP.**—The grace and beauty of the large blossoms are enchanting, it is rich and so delicate. This fine new Snowdrop was introduced recently from the mountains of Smyrna. It is three times as large and fine as the common Snowdrops, and a great acquisition, either for the garden or for pots. For winter blooming it is superb, its large, snowy flowers appearing in profusion, and showing great beauty and airy grace. Fine selected roots, 25 for 1s. 3d.; 50 for 2s. 3d.

## RARE NEW FRUIT SHOULD BE IN EVERY GARDEN.

**CURRENT, VICTORIA BLACK (NEW).**—This is the finest and largest Black Currant in cultivation. The fruit is of great size, splendid quality and flavour, and the plant is a most abundant bearer. Even young plants are literally covered with huge bunches of fruit almost as large as Grapes. Extra large 3-year-old trees, 4s. per dozen, carriage paid.

**THE LOCANBERRY,** the grandest of recent introductions, a cross between a Blackberry and a Raspberry. Hardy, vigorous grower. Fruit large and most delicious. Will be in every garden later. Owing to great demand, stock very limited. 2 for 3s.; 6 for 8s., carriage paid.

**RATHBUN BLACKBERRY.**—The fruit is very large and handsome, intense black with a very high polish and without any hard core, juicy, high flavoured; of so superior a quality that it is in a class by itself. Those accustomed to the old varieties would scarcely recognise it for a Blackberry, 3 for 2s. 6d.; 6 for 4s.; 12 for 7s. 6d.

**SPECIAL FRUIT COLLECTION.**—Two dessert Apples, 2 dessert Pears, 2 dessert Plums, 1 new Cherry (Noble). All 2-year-old trees, healthy, well grown; the 7 trees for 7s. 6d. Free on rail.

**CHAMPAGNE RHUBARB.** A grand new variety, of lovely crimson colour, and most delicious flavour, distinct from all others. The stems are very straight, and retain their beautiful colour when cooked. 6 for 1s. 6d.; 12 for 2s. 9d.

Mrs. GARDNER, F.R.H.S., PRIORY HOUSE, STROUD.

# Department of Agriculture and Technical Instruction for Ireland

## LIST OF THE DEPARTMENT'S LEAFLETS

No.	Name	No.	Name
1	The Warble Fly.	50	Portable Poultry Houses.
2	<i>Out of Print.</i>	51	The Leather-Jacket Grub.
3	<i>Out of Print.</i>	52	Flax Experiments.
4	<i>Out of Print.</i>	53	The Construction of a Cowhouse.
5	<i>Out of Print.</i>	54	Calf Meal.
6	Charlock Spraying	55	The Apple.
7	Fluke in Sheep.	56	Cultivation of the Root Crop.
8	Timothy Meadows.	57	Fruit Packing.
9	The Turnip Fly.	58	Sprouting Seed Potatoes.
10	Wireworms.	59	Seed Testing Station for Ireland.
11	Prevention of White Scour in Calves.	60	The Packing of Butter.
12	<i>Out of Print.</i>	61	<i>Out of Print.</i>
13	Contagious Abortion in Cattle.	62	Plans for Creamery Buildings.
14	Prevention of Potato Blight.	63	"Redwater" or "Blood Murrain" in Cattle.
15	Fertilizers and Feeding Stuffs Act, 1906, Regulations.	64	Varieties of Fruit suitable for cultivation in Ireland.
16	Sheep Scab.	65	Forestry: The Planting of Waste Lands.
17	The Use and Purchase of Manures.	66	Forestry: The Proper Method of Planting Forest Trees.
18	Swine Fever.	67	Forestry: Trees for Poles and Timber.
19	Early Potato Growing.	68	Forestry: Trees for Shelter and Ornament.
20	Calf Rearing.	69	The Prevention of Tuberculosis in Cattle.
21	Diseases of Poultry—Gapes.	70	Forestry: Planting, Management, and Preservation of Shelter-Belt and Hedgerow Timber.
22	Basic Slag.	71	Forestry: The Management of Plantations.
23	Dishorning Calves.	72	Forestry: Felling and Selling Timber.
24	Care and Treatment of Premium Bulls.	73	The Planting and Management of Hedges.
25	Fowl Cholera.	74	Some Common Parasites of the Sheep.
26	Winter Fattening of Cattle.	75	Barley Sowing.
27	Breeding and Feeding of Pigs.	76	American Gooseberry Mildew.
28	Blackleg, Black Quarter, or Blue Quarter.	77	Scour and Wasting in Young Cattle.
29	Flax Seed.	78	Home Buttermaking.
30	Poultry Parasites—Fleas, Mites, and Lice.	79	The Cultivation of Small Fruits
31	Winter Egg Production.	80	Catch Crops
32	Rearing and Fattening of Turkeys.	81	Potato Culture on Small Farms.
33	Profitable Breeds of Poultry.	82	Cultivation of Main Crop Potatoes.
34	The Revival of Tillage.	83	Cultivation of Osiers.
35	The Liming of Land.	84	Ensilage.
36	Field Experiments—Barley.	85	Some Injurious Orchard Insects.
37	" " Meadow Hay.	86	Dirty Milk.
38	" " Potatoes.	87	Barley Threshing.
39	" " Mangolds.	88	The Home Bottling of Fruit.
40	" " Oats.	89	The Construction of Piggeries.
41	" " Turnips.	90	The Advantages of Early Ploughing.
42	Permanent Pasture Grasses.	91	Black Scab in Potatoes.
43	The Rearing and Management of Chickens.	92	Home Preservation of Eggs.
44	"Husk" or "Hoose" in Calves.	93	Marketing Wild Fruits.
45	Ringworm on Cattle.		
46	Haymaking.		
47	The Black Currant Mite		
48	Foul Brood or Bee Pest.		
49	Poultry Fattening.		

Copies of the above Leaflets can be obtained, FREE OF CHARGE and post free, on application to the Secretary, Department of Agriculture and Technical Instruction for Ireland, Upper Merrion Street, Dublin. Letters of Application so addressed need not be stamped.



**NOW READY.****POST FREE.**

# **“GARDEN AND MACKEY’S WOODLAND.”**

**NURSERY  
CATALOGUE.**

A List of the more important Trees and Shrubs, Economic and Ornamental,  
and Hardy Plants, suitable for cultivation in Ireland.

---

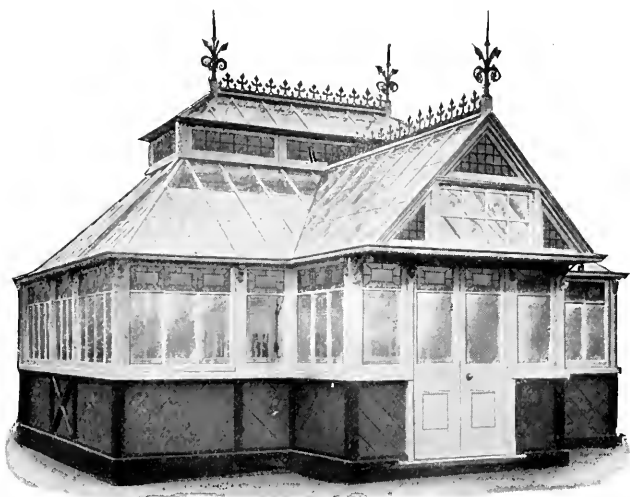
## **SIR JAMES W. MACKEY, LTD.,**

**FOUNDED 1777.****23 Upper Sackville Street, DUBLIN.**


---

## **JAMES CRISPIN & SONS, F.R.H.S.**

---



Supply all Classes of  
HORTICULTURAL  
BUILDINGS  
HEATING  
VENTILATING  
AND  
DOMESTIC  
SUPPLY  
APPARATUS

 Please write for Catalogue illustrating this and other Ornamental Conservatories.

---

Head Office : **NELSON STREET, BRISTOL.**

## Hardy Flowering Shrubs.

NO garden is complete without flowering shrubs and trees, and there are few more beautiful sights in spring time than a well-flowered tree of pink almond, hybrid cherry or crab apple. Variety is, however, practically endless, and shrubs may be grown with the greatest ease in any ordinary garden soil to flower from earliest spring; such as the Forsythia, which blooms freely in the harsh weather of March, to the "Blue Spiræa" (*Carvopteris mastacanthus*), which flowers in late autumn. Amongst evergreens the barberry family is a useful group, *B. Darwinii* and *B. stenophylla* being the pick for general cultivation, both yellow and extremely free bloomers. *Eurybia gumniana* is studded with white Michaelmas daisy-like flowers in June; and its fellow, *Olearia haastii*, also white, is a good subject under trees where few shrubs thrive. The Buddleias are good also; *B. globosa*, with its orange-coloured balls, and *B. variabilis zitchii*, which forms massive pyramids of flowers often 22 inches long. *Choisya ternata* is a general favourite, producing hawthorn-scented, white flowers over its bright aromatic foliage, and the writer took note of a beautiful specimen of *Escallonia langleyensis* studded with bright rosy-carmine flowers on every little branchlet in Mr. Walpole's garden at Ashford in June. The latter is one of the most graceful shrubs in cultivation.

An exhaustive catalogue of flowering shrubs may be obtained from Messrs. WATSON & SONS, Clontarf Nurseries, Dublin, where they make a speciality of flowering kinds. Their collection will be found to be comprehensive, and at moderate rates.

## Shows.

## Clare Horticultural Society.

THE above society held its annual general meeting on November 7th, when the past year's officials were re-appointed and the committee considerably strengthened. The balance sheet showed that £7 19s. 7d. was due to the treasurer on the past year's working, but as the society possesses show fixtures to the value of over £20, the society is in a much stronger position than would be assumed from a perusal of the balance sheet.

The secretary was instructed to take steps for the holding of a spring flower show on Easter Monday, April 12th; and July 28th was selected as the date for holding the summer show, at which, among other "special prizes," Sydenhams, Ltd., are offering valuable medals for sweet peas, and S. A. Jones, F.R.H.S., a "challenge cup," value £4 4s. (with money prizes), open to the Counties Galway, Clare, Limerick, Kerry and Tipperary (South Riding), for the best collection of vegetables, the produce of seeds obtained from him during the coming spring.

Schedule of prizes will be published about January 1st, and may be obtained by intending exhibitors upon application to H. Bill, hon. sec., Lifford, Ennis, Co. Clare.

## Catalogues.

PLANTERS' GUIDE: Trees, &c. Little & Ballantyne.—A comprehensive list of forest and fruit trees, shrubs, herbaceous and greenhouse plants. The numerous

Forest, Fruit & all other Trees  
& Plants, Roses, Evergreens &c  
Stocks quite unequalled. Catalogues post free.  
**Dicksons Nurseries Chester**



This "Apparatus" has obtained repute both in Large and Small Gardens.

Write for Discounts and Price Lists.

Manufacturers of  
PLAIN AND ORNAMENTAL  
SPOUTING,  
HOT WATER PIPES,  
BOILERS, PUMPS, LAMP  
POSTS, VENTILATING  
GEAR.

**THOS. W. ROBINSON, LTD.,**

Boiler and Pipe Manufacturers,

**STOURBRIDGE.**

**BOARD'S PATENT "WIRE ITENSION" "AMATEUR"**  
Light and Elegant.



**GREENHOUSES.**

**IRON FRAME.**

**NO OUTSIDE**

**ROOF PAINTING.**

**FLAT CLASS.**

**NO DRIP.**

**SPAN ROOF.**

10 ft. x 8 ft. £12 10 0

12 ft. x 8 ft. 14 10 0

14 ft. x 8 ft. 16 10 0

**LEAN TO.**

10 ft. x 6 ft. £9 10 0

12 ft. x 6 ft. 11 0 0

14 ft. x 6 ft. 12 10 0

Carriage paid to Irish Ports.

**SKINNER BOARD & CO., BRISTOL**

**DESTROY** ALL GREENHOUSE  
AND GARDEN PESTS

BY USING

**CLUBICIDE**

Stands UNRIVALLED for the purification of  
Greenhouses and Greenhouse soil, and the  
DESTRUCTION of Fly, Bug, Scale, &c., and  
all ground vermin

**Cross's Garden Fertiliser****Cross's Nicotine Vaporiser****Cross's Organic Tomato Guano**

To be had from your Seedsman

Manufactured by

**Alex. Cross & Sons, Ltd.**  
19 Hope Street, GLASGOW

ESTABLISHED 1820

**S. SPOONER & SONS**

Fruit Tree Growers

**HOUNSLOW NURSERIES**

HOUNSLOW, MIDDLESEX

**Fruit Trees a Speciality**

Over half-a-million to select from



CATALOGUES FREE ON APPLICATION

INSPECTION INVITED

**IMPORTANT TO**  
**GARDENERS**  
and Fruit Growers.
**"Niquas"**

(Registered),

The most successful Non-poisonous Insecticide  
of the day.

ITS ADVANTAGES ARE—

Certain death to all Insect Pests.

No possible injury to the most delicate Plant, Flower or Foliage.

It is by far the cheapest Insecticide known. One pint makes ten  
to twelve gallons for Thrip, Black and Green Fly, etc., whilst RED  
SPIDER, Mealy Bug, and Scale can be thoroughly eradicated by  
using "NIQUAS," double or three times the strength required  
for Fly.

**PRICES**—Pint, 1/-; Quart, 1/9; Half-Gallon, 3/-; Gallon, 5/-  
Kegs, each Five Gallons, 22/6; Ten Gallons, 42/6.

Ask for Testimonials, of which some hundreds have been  
received.

**SPECIMEN TESTIMONIAL.**

From Mr. E. HUBBARD, Gardener to G. Hanbury, Esq.,  
Blythewood, Burnham, Bucks, May 15th, 1906.

"I have been using your "NIQUAS" Insecticide for some  
years, and can with all confidence say it is the best I have ever  
used for Bug, Thrip, Red Spider, American Blight, and for all  
Insect Pests it has no equal. Also for the destruction of Maggots  
in Marguerites by dipping.

"I have recommended it to my friends generally."

**LETHORION**

Registered No. 62957.

IMPROVED METAL

**VAPOUR CONE****FOR FUMIGATING.****At Greatly Reduced Prices.****INTRODUCED 1885.**

(Registered Trade Mark.)

This well-known invention for the entire eradication of all pests  
infesting vegetation under glass is now manufactured in a more  
simple and reliable form. The small candle, which will be found  
packed with each cone, has only to be lighted, and placed on the  
ground in the centre of the Cone Frame, to produce immediate  
results. Nothing on the market can equal it for efficacy and  
cheapness.

Cone No. 3, for a well-secured house of cubic 2,000 to 2,500  
feet, 1/- each. Cone No. 2, for a well-secured house of cubic  
1,000 to 1,200 feet, 8d. each. Cone No. 1, Carbon, for frames of  
cubic 100 feet, 6d. each. Full directions accompany each Cone.

Ask for a List of Testimonials, of which some hundreds have been  
received from the leading gardeners in the Kingdom.

**To be had from all Seedsman  
and Florists.**

MANUFACTURED BY

**CORRY & CO., LTD.,**

At their Bonded Chemical Works,

**SHAD THAMES, S.E.**

Office &amp; Show Rooms:—13 &amp; 15 Finsbury St., London, E.C.

descriptive paragraphs give additional value to the catalogue.

NURSERY, SEED AND PLANT CATALOGUE. W. Hammond, Shillelagh. — A priced descriptive list of fruit and other trees, shrubs, &c., together with vegetable and flower seeds. Notes on planting and on the different forms of fruit trees are given.

DESCRIPTIVE CATALOGUE OF FRUIT TREES AND SHRUBS. W. Baylor Hartland & Sons. — An illustrated descriptive list especially of standard varieties of apples, including a special list of those that used to be grown in Irish orchards. Useful notes on planting, pruning and manuring are given in this interesting little catalogue.

FOREST TREES, ORNAMENTAL TREES AND SHRUBS. William Fell & Co., Hexham. — An interesting and useful catalogue covering a wide field. The numerous descriptions scattered throughout the 64 pages are very readable. Planters will do well to send for a copy.

200 Highest Awards: Gold Medals from all the Principal Exhibitions.

## PURE ICHTHEMIC GUANO.

The Most Reliable, The Richest Food,  
and the Most Natural Fertiliser.

Supplied in Tins and Bags, 6d. to 20/. Carriage paid on quantities of 28-lbs. and upwards.

**FAME'S FERTILISER.**  
Swift, Safe, and Sure.

Supplied in Tins and Bags, 6d. to 20/. Carriage paid on quantities of 28-lbs. and upwards.

May be obtained from the principal Nurserymen, Seedsmen Florists and Chemists, or DIRECT OF—

The Sole Proprietors and Manufacturers,

**WM. COLCHESTER & CO.,**

IPSWICH, England.



**IF YOU HAVE A GREENHOUSE**

Why not heat it during the Cold weather? The cost is small. Send a post card for Catalogue to

**CHAS TOOPE (F.R.H.S.) & SON.**  
Heating Engineers, STEPNEY SQUARE, LONDON, E.  
TELEGRAMS "TOOPES" LONDON. TEL NO 3497, EASTERN.

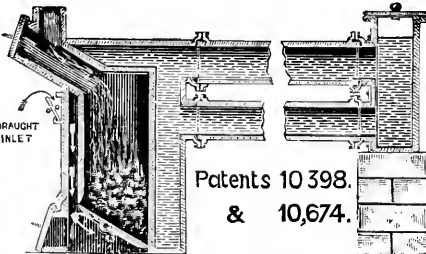
## The Boiler for Amateurs

### KINNELL'S SILVER MEDAL "HORSE-SHOE."

Will burn from 10 to 20 hours. Over 20,000 in use.

Awarded 2 Gold Medals by Botanical Society.

CHEAPEST BECAUSE BEST . .



Patents 10 398.  
& 10,674.

Illustrated Catalogue, Plans, and Estimates free on receipt of particulars to—

**CHAS. P. KINNELL & Co., Ltd.**

65 & 65a Southwark St., LONDON, S.E.

**CHEALS'** 110 ACRES. FRUIT TREES.  
ORNAMENTAL TREES.  
SHRUBS OF ALL KINDS  
GARDEN SEEDS. **CHEALS'** BULBS AND  
FARM SEEDS. PLANTS.  
LANDSCAPE GARDENERS.  
GARDEN ARCHITECTS, &c. **CHEALS'**

London Office for this department :—

53 VICTORIA STREET, WESTMINSTER.

*Booklet on Garden Making Post Free.  
Catalogues Post Free.*

**J. Cheal & Sons,** Lowfield Nurseries,  
Crawley, Sussex. .

## The Native Apples of Ireland ! !

We wish your many readers would take up the "gathering" into their gardens once more the apples of our grand-parents. There are over 20 excellent sorts offered this year in HARTLAND'S List, a copy of which can be had on application. The sorts are such as our W. B. H. knew to exist in his grandfather's Nursery at Mallow, Co. Cork, 70 years since.

**Wm. Baylor Hartland & Son,**  
Ard Cairn Nursery and Bulb Grounds,  
CORK.

## M. Saunders & Sons

Beg to call attention to their unsurpassed and extensive collection of

## General Nursery Stock

including Fruit Trees of all kinds, clean and well rooted; Roses of all classes, thousands to select from; Avenue Trees of all kinds; Conifers, a magnificent collection; Evergreen and Deciduous Flowering Shrubs in endless variety; Forest Trees, several acres of all sizes . . Inspection invited

*Catalogues Free on Application*

**Friars Walk Nurseries**  
— Cork —

SPECIAL  
NOTICE**SWEET PEAS**FOR  
1909.

IF YOU WANT

**REALLY GOOD SWEET PEAS**

AT MODERATE PRICES, send to

**ROBERT SYDENHAM, LIMITED, TENBY STREET, BIRMINGHAM.**

No Flowers give so much cut bloom at so little cost and trouble as Sweet Peas.

**SPECIAL COLLECTIONS FOR 1909.**

For fuller descriptions of the varieties mentioned in this list and all other known varieties, we refer our friends to the little book "ALL ABOUT SWEET PEAS," revised and corrected to end of 1908. Price 6d.

The seeds in these Collections are all carefully hand picked; only plump round seeds sent; all small, poor, or doubtful ones are taken out, which we do not think is done by anyone else in the trade; eighty to ninety per cent, guaranteed to germinate if treated as instructions sent with each collection.

EACH PACKET in Nos. 1, 2 and 3, CONTAINS 50 SELECTED SEEDS.

Buyers not wanting any collection complete, may select their own varieties from EITHER COLLECTION at prices mentioned, and have 2s. 6d. worth for each 2s.

**COLLECTION No. 1—TWELVE USEFUL VARIETIES, 1/3.**—Coccinea, dark carmine scarlet; Dainty, white, with slight pink edge; Dorothy Eckford, white; Evelyn Byatt, orange and crimson bicolor; Henry Eckford, orange scarlet; Hon. Mrs. Kenyon, pale primrose; Miss Willmott, salmon-red; Mrs. A. Watkins or Clady Unwin, waved pink; Navy Blue, deep violet blue; Prince of Wales, rich rosy crimson; Romolo Piazzani, rich blue; Salopian, deep mulberry red.**COLLECTION No. 2—TWELVE GOOD VARIETIES, 1/9.**—A. J. Cook, pale lavender purple; Black Knight, bronzy chocolate; Countess Spencer, large wavy pink; Duke of Westminster, rosy violet; Herbert Smith, orange and crimson bicolor; King Edward VII., rich crimson; Lady Crisel Hamilton, pale lavender; Mrs. Collier, pale primrose; Nora Unwin, waved white; Queen of Spain, salmon-pink; Sybil Eckford, creamy buff, flushed pale pink; Triumph, rosy salmon and blush.

SINGLE PACKETS OF ANY VARIETY IN COLLECTIONS Nos. 1 and 2, 2d. each

COLLECTIONS Nos. 1 and 2, when bought together, will be 2 6, and a packet of "Millie Maslin" and "John Ingman" Seedlings will be added free of charge.

**COLLECTION No. 3—THE TWELVE BEST VARIETIES, 2/-.**—Clara Curtis, syn. Primrose Spencer, waved primrose; Etta Dyke, syn. White Spencer, waved white; Frank Dolby, waved lavender, see Fig. 1; George Herbert, waved carmine and rose; Helen Lewis, waved orange and rose, see Fig. 6; Helen Pierce, marbled blue; Jeannie Gordon, carmine and buff; Lord Nelson, dark blue; Mrs. Hardcastle Sykes, waved blush pink, see Fig. 1; Mrs. Walter Wright, rich rosy mauve; Paradise, rich pink, the best of the Countess Spencer type; Queen Alexandra, the best crimson scarlet.

SINGLE PACKETS OF ANY VARIETY IN COLLECTION No. 3, 3d. each. COLLECTIONS Nos. 2 and 3 may be had together for 3/-, and a Packet of "Phenomenal" and "Agnes Eckford" will be added free of charge.

**SPECIAL PRICE FOR THE THREE COLLECTIONS, 4/-**

and when bought together, the four added packets and a packet each of the four best striped varieties, viz.:—

Jessie Cuthbertson, Mrs. J. Chamberlain, Marbled Blue or Hester and Unique, will be added free of charge, making 14 of the very best varieties in cultivation, at an average cost of about one penny a packet.

PRICE OF EITHER OF THE EIGHT ADDED VARIETIES, IF WANTED ALONE, 2d. EACH.

**COLLECTION No. 4—THE TWELVE NEWEST VARIETIES, 4s., or what we consider the Best of the Newest.** SPECIAL NOTICE. The number of seeds in each packet in Collection No. 4 varies. The number is stated in black figures after each name, and where the packets can be sold separately the price is stated as well. There are about two thousand packets of these priced varieties apart from what is anticipated will be sold in the collections. When these are sold orders can only be taken for the full collection, which is put at a specially low figure. Any variety not priced cannot be sold apart from the collection.

Apple Blossom Spencer (20), rosy pink and blush, waved, 6d.; Audrey Crier (10), bright rosy pink, waved; Evelyn Hemus (15), waved primrose, with picotee edge of pink, 6d., see Fig. 5; Jet (50), the darkest of all Sweet Peas, 3d.; Mother o' Pearl (Aldersey) (25), a beautiful silvery lavender, slightly hooded and sweetly scented, 4d.; Mrs. Rutzahn Spencer (10), the gem for 1909, a buff or pale primrose ground shaded with salmon pink, a much improved Mrs. Henry Bell, 6d.; Paradise Carmine (15), a large waved, carmine and rose; Queen Victoria Spencer (10), a waved deep primrose, slightly shaded pale rose; Saint George (15), a grand orange scarlet, 1s. see Fig. 3; Sutton's Queen (25), a buff ground Countess Spencer, 4d.; The King (12), a fine waved form of King Edward VII., see Fig. 3; The Marquis (12), large waved rosy mauve.

COLLECTIONS Nos. 3 and 4 may be had together for 5/- and a packet of the New White Everlasting Pea, WHITE PEARL, 25 seeds, added free of charge.

**SPECIAL PRICE FOR THE FOUR COLLECTIONS, 7/-,**

which, with the nine added varieties, will be 57 in all, and making it the best collection, considering the varieties, ever offered for the money.

A few packets of Mr. Hugh Aldersey's celebrated SYEIRA LEE (20 Seeds) 1s.; sold as not quite fixed.

Mr. Malcolm's MRS. A. MALCOLM (25 Seeds), 1s.; (10 Seeds), 6d.; CHRISSIE UNWIN (20 Seeds), 6d.; JOHN INGMAN (50 Seeds), 3d.; re-selected, but not guaranteed as quite fixed. ROSIE SYDENHAM (20 Seeds), 4d.; not quite fixed; also ROMANI RAUNI (Aldersey) (20 seeds), 1s., sold as not quite fixed.

CHOICE MIXED SEEDS of most of the above, and other varieties, 2d. per packet of about 100 seeds; 6d. per ounce of about 350 to 400 seeds; 1s. 6d. per ½ lb., or 5s. per lb. of about 5,000 to 5,500 seeds.

ALL OTHER SEEDS EQUALLY CHEAP AND GOOD. FULL LIST POST FREE ON APPLICATION.

PLEASE MENTION THIS PAPER.

**'EUREKA' WEED KILLER.**

SAVES WEARY WEEDING.



**POWDER.**  
 1/- - - tin for 12 galls. solution  
 19 - - - " 25 " "  
 6/- - - " 100 " "

Free Tins and Cases.

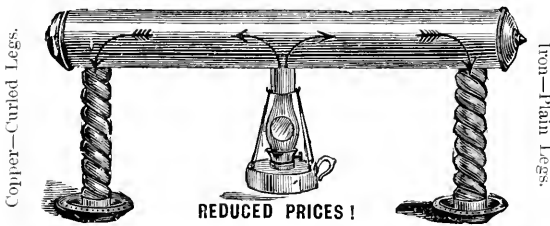
**LIQUID. 1-50.**  
 1/2 gallon - 2 - - drum free  
 1 " - 3 6 - " 9d. extra  
 2 " - 6 6 - " 1 6 "  
 5 " - 14 - " 2 6 "  
 10 " - 25 6 - cask 5/- "

'EUREKATINE'—The successful fumigant.

'EUREKA' Insecticide, Lawn Sand, Hellebore Powder, Bordeaux Mixture, Worm Killer, Hayward's Summer Shade, &amp;c.

SOLD BY AGENTS.

Full list with booklet, "Chemistry in Garden and Greenhouse," sent post free by makers—

**TOMLINSON & HAYWARD, Ltd., LINCOLN.****THE FIRST HEATER OF ITS KIND! STILL THE BEST!**

REDUCED PRICES!

**TREGGON & CO., Brewery Road, LONDON, N.**

BEST . . .

**HOUSE**

And . . .

**COALS****COKE FOR HORTICULTURAL PURPOSES**

*Special attention paid to Quality,  
 . Price and Prompt Delivery .*

**Flower & McDonald**

. DIRECT COAL IMPORTERS .  
 COKE AND CHARCOAL MERCHANTS

**14 D'Olier Street, DUBLIN**

Telegraphic Address: "DONALD, DUBLIN."

Telephone No. 848

**APRONATUS PONICUS.**

What's this! A New Plant?

No!

**A NEW APRON!**

Designed by a Gardener for Gardeners.

**LOOK AT THE PRICE.**

In  
 Dark Blue  
 "Ponicus"  
 Twill,

**1/9**Postage 3d.  
extra.

Registered.

Or in Dark Blue  
 "Ponicus"  
 Serge of Ever-  
 lasting Wear,

**3/9**Postage 3d.  
extra.

From Belfast—ALEX. DICKSON &amp; SONS, Ltd., 55 Royal Avenue.

From Dublin—W. DRUMMOND &amp; SONS, Ltd., 58 Dawson Street.

ALEX. DICKSON &amp; SONS, Ltd., 61 Dawson Street.

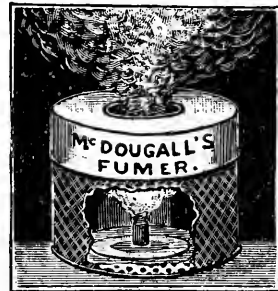
EDMONDSON BROTHERS, 10 Dame Street.

**LOOK HERE !!**

**D**O you want beautiful trees for your Rock Garden, Villa Garden, or Cottage Garden? We make collections suitable for such purposes. Cheap, good, hardy, well-grown thrifty trees, shrubs, or climbers. Any information gladly given on receipt of particulars of garden. Say kind of soil, and if any rockery. Catalogues free from **THE STANCLIFFE ESTATES CO., Ltd.,** Nurserymen, Darley Dale, Derbyshire.

**FUMIGATE**

WITH

**Mc.DOUGALL'S "FUMER"**

NO SPIRIT OR LIQUID POISON.  
 READY FOR USE. CHEAP & HANDY.

# PLANTING SEASON

Roses (Climbing)—the finest lot ever seen  
 Roses (Bedding), and uncommon kinds  
 Seaside Shrubs—

Flowering Shrubs and Trees

Climbing Shrubs and Plants

Herbaceous and Alpine Plants



**T. SMITH**  
**Daisy Hill Nursery, NEWRY**

The best collection  
 in the Kingdom

## RELIABLE FRUIT TREES

AT REASONABLE PRICES

Intending planters are invited to send for our descriptive Catalogue of Fruit Trees, of which we hold an immense stock, well grown, true to name.

Whether you are planting for pleasure or profit, or both, it is of the utmost importance to buy good Trees and to plant them well.

Our Trees are doing exceptionally well in Ireland, and we are prepared to quote special prices for large or small quantities, delivered to any railway station.

**Roses, Ornamental Trees and Shrubs  
 Hardy Perennials, in great variety**

CATALOGUES FREE.

**The Barnham Nurseries, Ltd.**  
 BARNHAM, SUSSEX.

## County Armagh Grown Fruit Trees

Very Large Stock of—

APPLES . GOOSEBERRIES  
 PEARS . CHERRIES .  
 PLUMS . RASPBERRIES .

Immense stock of Black Currants, new varieties ; grand bushes, clean and healthy, 2, 3, and 4 years' old. Also Shrubs, Forest Trees and Thorns of Sizes

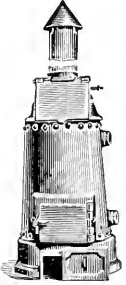
*Orders have prompt attention*  
 CATALOGUES FREE

**W. BLEAKLEY**  
 Nurseries, Killylea, Co. Armagh



## Improved BEATRICE GREENHOUSE BOILERS.

Complete Apparatus from 75s.



A modern success. Great improvement over old-type boilers. The "Beatrice" makes greenhouse work a pleasure. One stoking for the day, one stoking for the night. Even draught, even temperature. Guaranteed double the sale of any other boiler. To intending purchasers

List Post Free.

Easy Payments Arranged.

**JAS. CHEW & CO.,**

Brookhouse Iron Works,  
BLACKBURN, LANCS.

## SLUGS, WIREWORM & DESTROYED & PLANTS INVIGORATED

By a Dressing of "ALPHOL." A valuable Manure which Destroys Insect pests in the soil without injury to the plants. Try it now. 28 lbs. will dress 250 square yards. 7 lbs., 2/-; 14 lbs., 3/-; 56 lbs., 8/6; 1 cwt., 15/-. Every enquiry welcomed.

**BOUNDARY CHEMICAL CO. LTD. CRANMER ST. LIVERPOOL**

**WEEDS DESTROYED ON GRASS INVIGORATED**  
LAWNS, TENNIS COURTS, BY GOLF, BOWLING GREENS &c.  
**"CLIMAX" LAWN SAND**  
THE BEST DRESSING FOR WEEDY OR IMPOVERISHED LAWNS.  
Write for our Catalogue of Garden Helps.  
**BOUNDARY CHEMICAL CO. LTD. CRANMER ST. LIVERPOOL**

**TRY IT NOW.**  
Sample tins, 1s., 2s., and 3s. 6d.; or 28 lbs. to dress 100 square yards. 6s., carriage paid.

Vegetable, Flower, and Farm Seeds  
From the Finest Stocks and Strains in Cultivation.  
*Catalogue Post Free.*

**Browne, Thompson & Co.,**

Seedsman, CORK.

Telegrams—"THOMPSON, SEEDSMAN, CORK."

Established 1896.

Telephone 107 Y.

Window Cleaners, etc., to Shops, Offices, Warehouses,  
Private Residences, etc., Dublin and County.

**'DISHER'S,'** House, Shop, and Office Cleaners,  
Limewashers, Whiteneers, and  
Glazing Contractors,

**6 Fleet Street, DUBLIN.**

DISHER'S Cleaning and Disinfecting Composition will clean and disinfect your House, Shop, and Office throughout (without soap). 3s. 6d. Gallon Can delivered.

**BAYLISS, JONES & BAYLISS LTD.**  
FOR ALL KINDS OF  
**IRON FENCING**  
VICTORIA WORKS  
**WOLVERHAMPTON**  
LONDON OFFICES & SHOW ROOMS  
119 & 141 CANNON ST.  
E. C.

DOG KENNEL & POULTRY RAILING CORRUGATED SHEETS  
TREE GUARDS WIRE NETTING ETC.  
GARDEN ARCHES FRUIT ESPALIER LIGHT MURDLES ETC.

Get our Price List, well worth having.

THE SENSATION OF LAST WINTER.

Our Celebrated **"G. Brand"** Grained Clogs

(Lined with Thick Felt throughout).

Are still on the Market, and the sale is enormous.  
TRY THEM AT ONCE.

Keenest price known. Only **3/6** Postage paid right to your door.

Any size: 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.  
Ladies' or Gentlemen's.

DAMP FEET means an illness unless Clogs are worn.

ONLY FROM—

**John Greenlees** (Manufacturer of the "G. Brand" Clogs,  
4 Wellington Street, GLASGOW.

Praised by all our Customers in Great Britain.



## NOTICE

TO THE READERS OF  
"IRISH GARDENING."

The present number completes the Third Volume of "Irish Gardening." A Title-page and Index will be issued next month, and will be sent free to any Subscriber applying for same.

Readers of "Irish Gardening" are asked to kindly introduce the paper to any of their friends interested in plants and gardening, and to suggest that the commencement of a new volume is a good time to become a subscriber.











3 5185 00260 8006

